# Consultation 2

## Culloden Academy Masterplan and Phase 1 development

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# Contents




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# 1.0 Consultation 1 Review

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# Consultation 1 Review

The first Culloden Academy planning consultation was held on the 18/01/22.

There were approximately 20 participants and summary of comments were as follows:

- The masterplan and phased development for the school was largely well received. Comments received largely related to timing and funding of phasing.
- Following consultation 1 as part of a review of all capital projects, the accommodation schedule has been updated and a new floor plan layouts are demonstrated later in this presentation.

# 2.0 Consultation 2 - Overview

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# Consultation 2 Overview

This second consultation reviews the following list of designers, consultees, inputs and there impact on the overall masterplan design.

**Fairhurst Engineering**
- Drainage
- Flooding
- Transport

**Morrison Construction**
- Construction Traffic Management
- Noise Assessment
- Dust management

**CDMM**
- Electric Car charging Strategy
- Operational noise assessment

**Property And Land Surveys**
- Arboricultural Impact assessment
- Tree Constraints plan
- Tree protection plan
- Schedule of mitigation
- Compensatory Planting plan

**Horner Maclennan**
- Landscape Plan

**Highland Archaeological Services**
- Archaeological Site investigation

**Affric**
- Protected Species Survey

# 3.0 Previous masterplan

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# 4.0 Fairhurst Engineering

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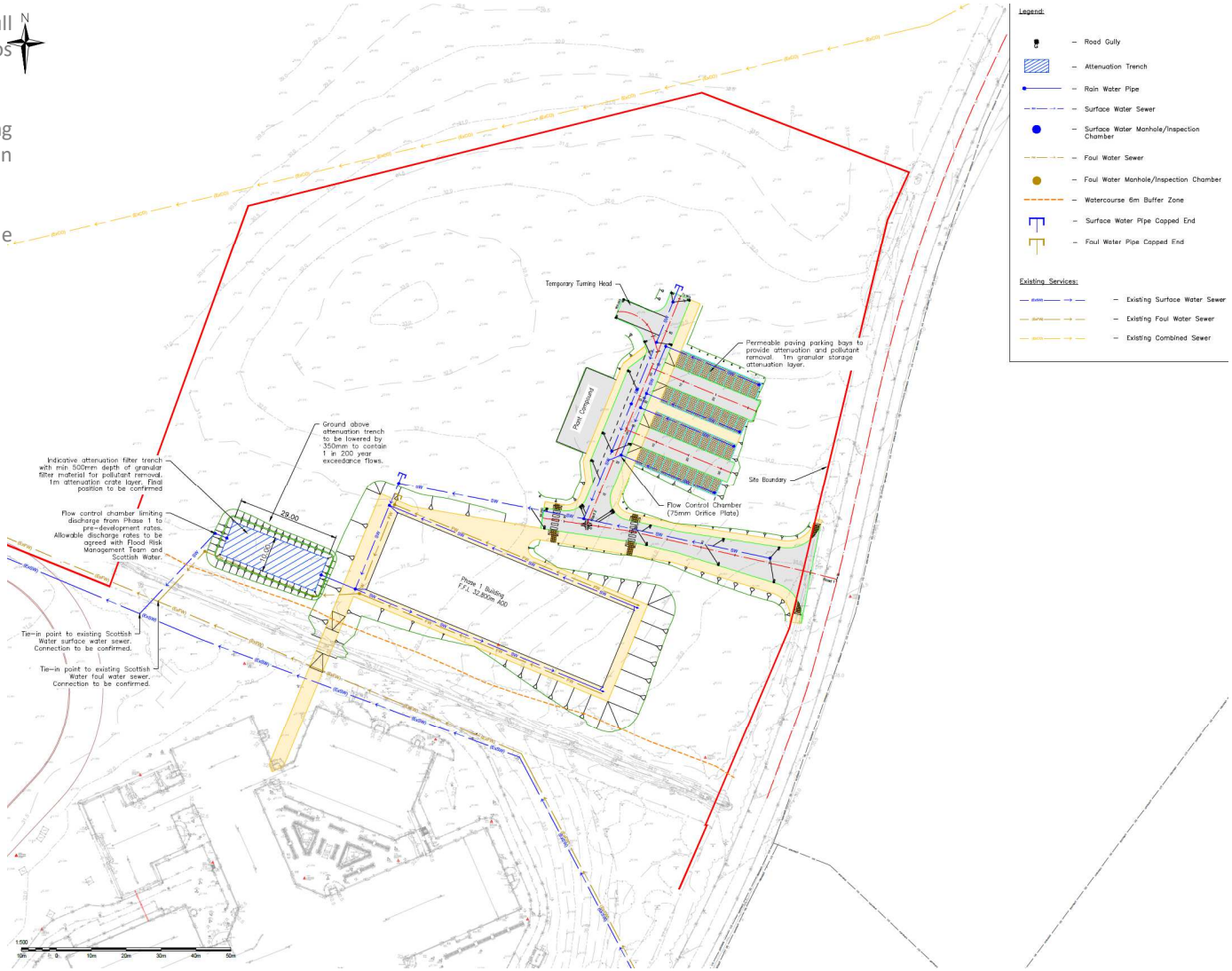
# Drainage Impact Assessment

Fairhurst Engineering was appointed to undertake a full drainage impact assessment outlining possible scenarios for dealing with foul and surface water treatment.

The preferred option for surface water from the building and carpark was to discharge to the existing Burn via an attenuation filter trench.

The foul will run under the burn and connect into the existing foul sewer which runs adjacent to the burn.





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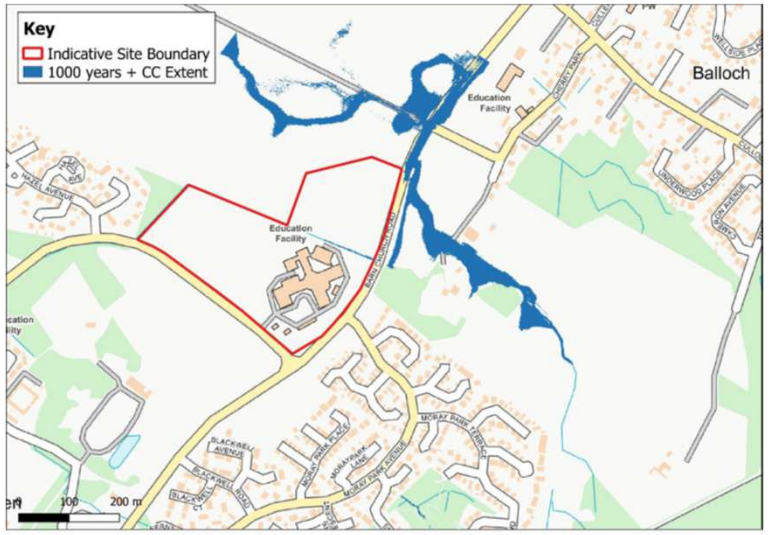
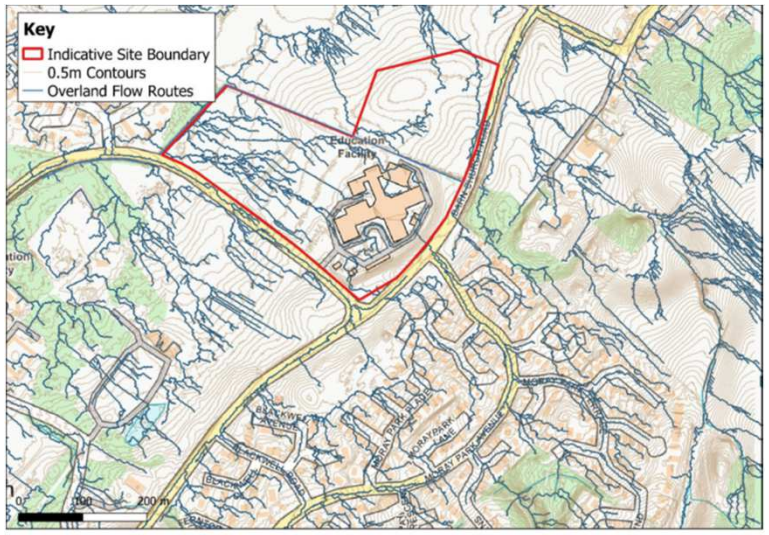
# Flood Risk Assessment

Fairhurst was appointed by The Highland Council to carry out a Flood risk assessment for a proposed new school campus in Culloden.

- Modelling indicates water in the burn would remain in channel in all events up to and including a 1 in 1000 year + CC event.
- Minimum finished floor levels have been recommended for the development based on the outputs of the modelling study.
- Flood risk from other sources, including overland flow, sewer flooding and groundwater flooding, can be mitigated by the implementation of a dedicated drainage system incorporating SUDS.





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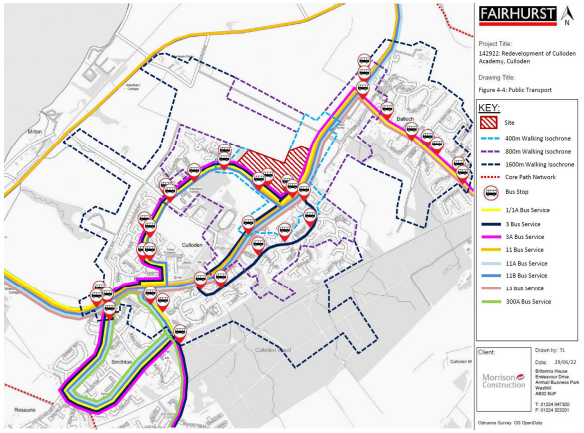
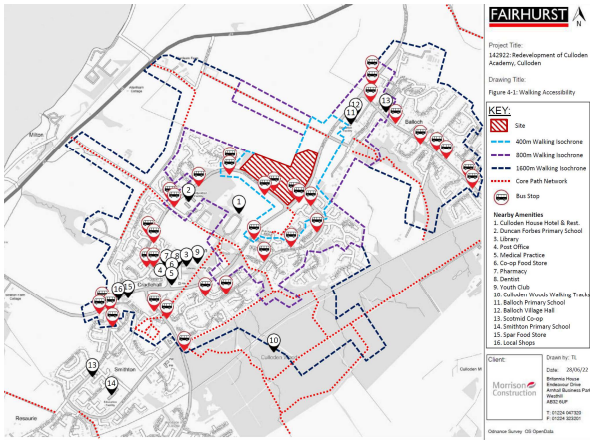
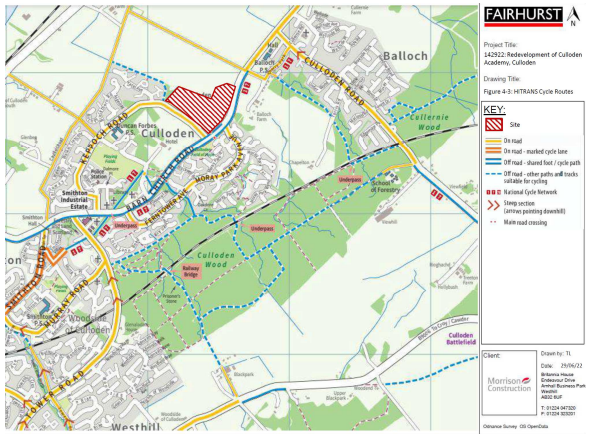
# Transport Assessment

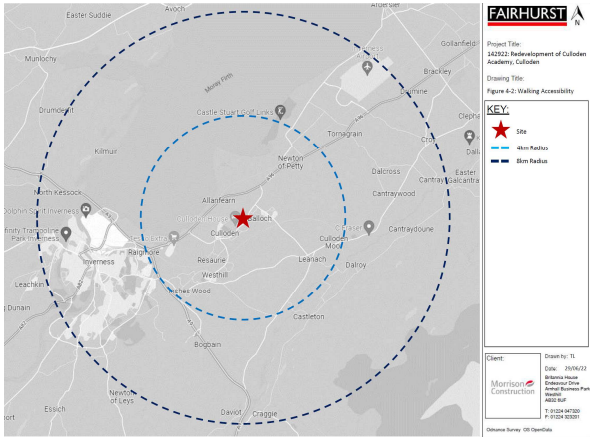
Fairhurst were appointed to undertake a transport assessment. The conclusions were as follows:

- As the new Culloden campus is essentially in the same location as the existing Academy, no detrimental impact is anticipated with respect to travel to and from the site.
- The site already generates a high number of walking and cycling trips and is well placed to encourage sustainable travel by other modes.
- The proposals provide enhanced accessibility for pedestrians and cyclists with a new access from Barn Church Road which incorporates a new signaled crossing.
- There are 100 parking spaces existing at Culloden academy
- On completion of the development there will be in the order of 180 parking spaces. The final number will be determined in conclusion of the transport assessment.

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# 5.0 Morrison Construction

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# Construction Traffic Management plan

The site has an independent access separate to the existing school. The proposed construction compound is relatively straight forward in the it can use the proposed new access track to form a one way system for construction traffic. It can also be easily fenced and secured to form a second inner compound to house welfare facilities and a landing area for products.

- Topsoil bunds maybe required for treatment of soil containing hogweed if not removed off site.

- Construction traffic signage will be placed at suitable locations along barn church road.


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# Noise & Dust Management Plan

The following outline methodologies will be developed in greater detail with our sub-contractors prior to commencing on site, these documents provide a base level to which all operations will be required to conform.

Morrison Construction is accredited to
ISO:14001 – Environmental Management Systems
OHSAS:18001 – Health & Safety Management
Our accreditation requires us to operate Management systems and these systems form the basis of our delivery methodology for disruptive works.

Our systems provide site teams with applicable standards for general "Nuisance Control". We have
included two relevant standards as appendices

STD-HSS-N01 – Noise and Dust management(example page of policy shown to the right)
STD-HSS-N02 – Nuisance Management



**CHSM Section C3 – Noise**
Health hazards associated with noise / Exposure levels / Noise assessment / Types of noise hazards that could cause harm / Control measures / Noise exposure ready reckoner / Hierarchy of Controls / Noise health surveillance / Noise reduction techniques for construction plant and activities / Safe systems of work

**1. GENERAL STANDARDS**

a. The risks of noise induced hearing loss from workplace operations should be reduced by elimination or reduction of noisy operations by using appropriate control measures. **Ref CHSM C3**.

b. Where we are part of the design team, the designers should eliminate or reduce the need for plant / equipment producing significant noise levels during the construction stage as far as reasonably practicable. Residual risks should be recorded and passed on to the construction team.

c. Following the hierarchy of control, the selection of the tools / equipment should be based on the lowest sound levels for the tool suitable for the work.

d. Noise levels of all operations / equipment should be assessed and where significant noise levels are likely to be emitted during the work process a noise activity assessment form (**FM-HSS-N01-02**) should be completed and appropriate control measures identified.

**e.** Those exposed to significant noise levels are classed as safety critical workers, and daily records of personal dosage should be recorded (**FM-HSS-N01-01**), for further guidance refer to Occupational Health Standard **STD-HSS-O1.**

f. Noise levels for noise assessments should be taken using a calibrated noise meter and a windshield to protect the microphone against air movement or noise. Noise apps can be used for daily monitoring as an indicative of the noise level in the workplace.

g. The noise levels obtained should be based on real life data or credible measurements provided by the manufacturers, the hirers, the contractors, or industry sources. DEFRA have provided a data base that could be used as a base line where other information cannot be attained, this can be viewed on the Intranet.

h. The risk of nuisance noise should be identified, and contact made with local environmental health departments and, where necessary, others who may be affected by the works. For further information on complying with environment regulations in relation to noise emissions, contact your local HS&S Advisor (**STD-HSS-N02**).

i. Those persons identified as being at risk of industrial deafness / noise induced hearing loss should receive regular health surveillance – see Occupational Health Standard (**STD-HSS-O01 and CHSM C3**).

j. Personal protective equipment should only be used where collective measures have been considered but, are not reasonably practicable to use.

**2. COMPETENCY**

a. Noise measurements / assessments for setting up hearing protection zones can be taken by those who have received familiarisation training in the equipment to be used and have an understanding of the Noise at Work Regulations and the hazards associated with operational activities.

**3. BID TO PRE-CONSTRUCTION**

a. The Project Lead should identify the equipment / activities where there is likely to be significant noise level exposure for employees or other persons, and record provisional measures to combat those risks within the construction phase health and safety plan (**FM-HSS-C01-01**) e.g. acoustic screens for cutting stations, around generators etc.



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# 6.0 CDMM

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# Operational Noise Assessment

An assessment of the contribution of environmental noise to the internal ambient noise level of the proposed Culloden Academy development.

A noise survey has been undertaken on site and internal ambient noise levels attributable to environmental noise have been predicted on the basis of a natural (open window) ventilation strategy.

The predicted internal levels have been assessed against performance standards set out in BB93 and results indicate that - provided the layout of the rooms (as shown in the plans in Appendix 3) - does not change then all internal ambient noise level limits can be achieved in all areas of the building allowing for openable windows for ventilation across the development.

**APPENDIX 1 – SITE PLAN**

The measurement location is shown relative to the proposed new Phase 1 building in the site extract below.


*Figure A1.1 – Proposed Site Plan Indicating Measurement Position*

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# Electric Car Charging points

The Highland council seek to improve on the national policy and provide 10% electric car parking spaces out the total whilst also building in future infrastructure which would allow for every 2nd space to become a electric charging point. As the school is a destination setting rather than a drop in, it is proposed that 7Kw charging points are to be installed.

- Phase 1 of the development will include for 4 No. 7KW charging spaces (10% of newly created spaces)
- The intention at completion of phase 4 is that a maximum of 10% of the available parking spaces will be equipped with car charging facilities.
- The development will also include below ground ducting to facilitate further car charging provision up to a maximum of 20%.

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# 7.0 Property And Land Surveys

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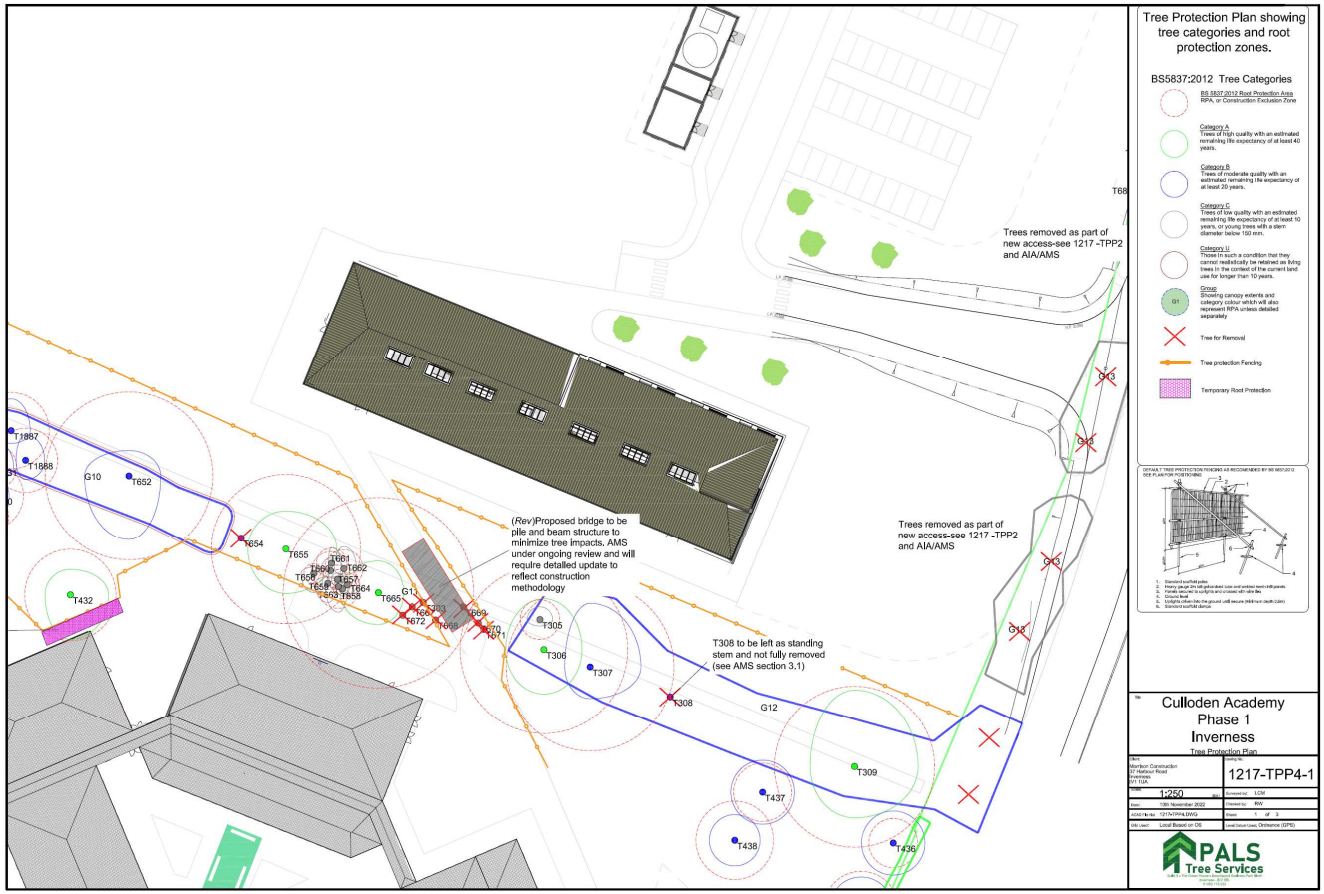
# Phase 1 - Tree Protection Plan

The masterplan & phase 1 proposal has very limited tree removal.

- Trees have already been removed as part of the junction construction.
- Trees effected by the Phase 1 construction are where the bridge crosses the Burn. The bridge has been positioned in such a way as to minimise the effect on the higher quality trees.
- The bridge will be of a construction to minimise the effect on root protection zones.
- Ongoing evaluation of the tree removal will be required as the project develops through to final construction. Compensatory planting will be undertaken as part of the landscaping proposal.





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# 8.0 Horner Maclennan

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# 9.0 Highland Archaeological Services

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# Culloden Academy All Weather Pitch and Master Plan Setting Assessment

A full setting assessment has been carried by Highland Archaelogical Services in respect to the new masterplans impact on the landscape in particular relation to the Culloden Battlefield, Culloden House, and the Culloden House Designed landscape.

- All weather pitch was seen to have minor impact to the Culloden Battlefield and Culloden house. Negligible impact to the design landscape
- Phase 1 building was seen to have minor impact to the Culloden Battlefield and Culloden house. Negligible impact to the design landscape
- Phase 1 -3 of the masterplan was seen to have potential positive impact on the Culloden Battlefield , Culloden house and designed landscape.
- The level of impact were ascertained through archaeological investigation in the areas of both the synthetic pitch and the phase 1 & 2 development areas.

**Table 4: Impact Assessments**

| | Sensitivity | All Weather Pitch | | Phase 1 Building | | Phase 1-3 (Masterplan) | |
|---|---|---|---|---|---|---|---|
| | | Magnitude of Impact | Resulting Impact | Magnitude of Impact | Resulting Impact | Magnitude of Impact | Resulting Impact |
| Culloden Battlefield | High | Negligible | Minor | Negligible | Minor | Slight positive (potential) | Moderate positive (potential) |
| Culloden House | High | Negligible | Minor | Negligible | Minor | Slight positive (potential) | Moderate positive (potential) |
| Culloden GDL | Moderate | Negligible | Negligible | Negligible | Negligible | Slight positive (potential) | Minor positive (potential) |

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# 10. Affric

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# Protected Species Survey

Affric were appointed to undertake a protected species survey. Below summaries the outcomes for the protected species survey.

No evidence to suggest that otter, pine marten or red squirrel are using the Survey Area as a place of shelter was identified.

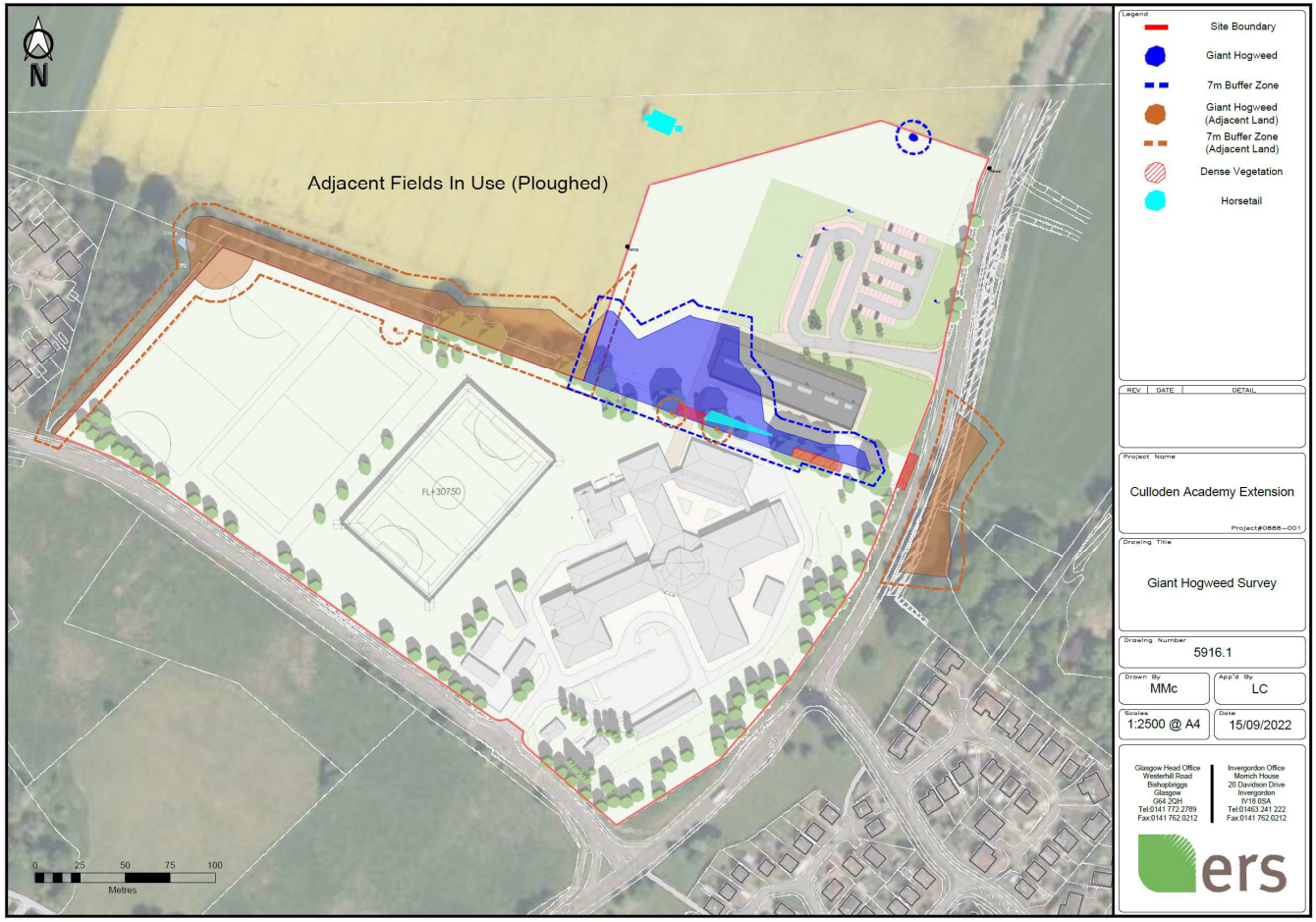
The proposed works are very unlikely to affect the landscape use by otter as the Site is located at the head of the watercourse within a suburban location.

It is possible that red squirrel may utilise the small blocks of woodland to the west of the school and to the east of Barn Church Road, but use of the linear woodland along the northern boundary of Culloden Academy is assessed as being unlikely.

Although not the focus of the survey the presence of giant hogweed *Heracleum mantegazzianum* along the unnamed burn, including with the school grounds should be recognised.

It should also be noted that many of the trees within the Survey Area offer high suitability to support roosting bats, a European protected species. It is understood that additional bat surveys are planned to identify if bats are utilizing the area.

Figure (right) Shows hogweed presence





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# 11. Updated phased development

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# 11. Updated Masterplan

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# 11. Updated Phase 1 Plans

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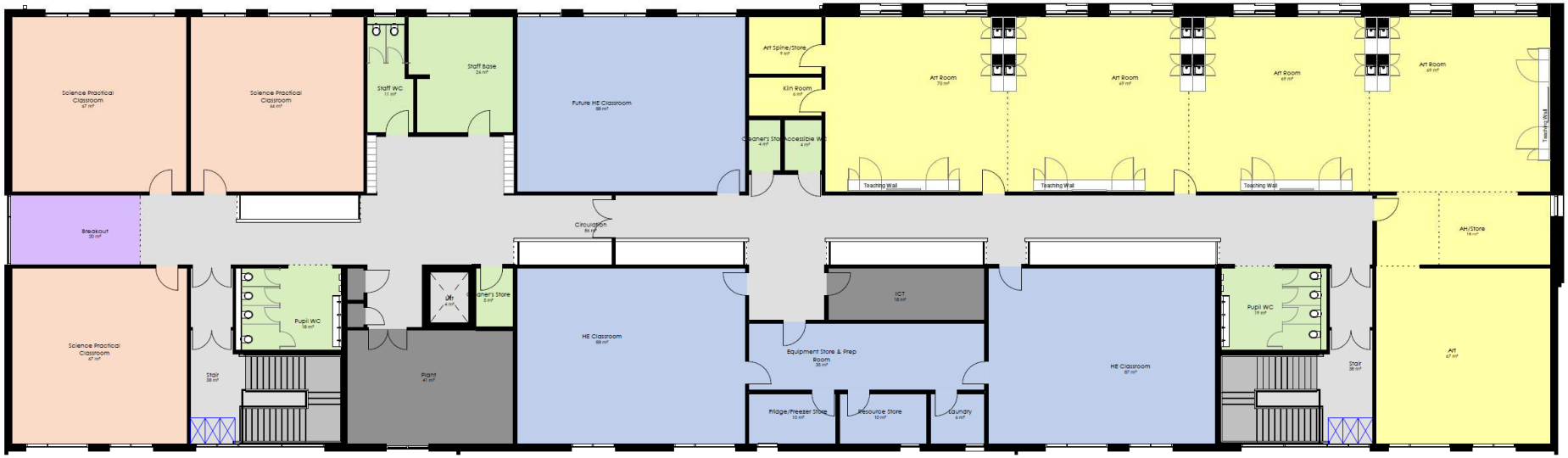
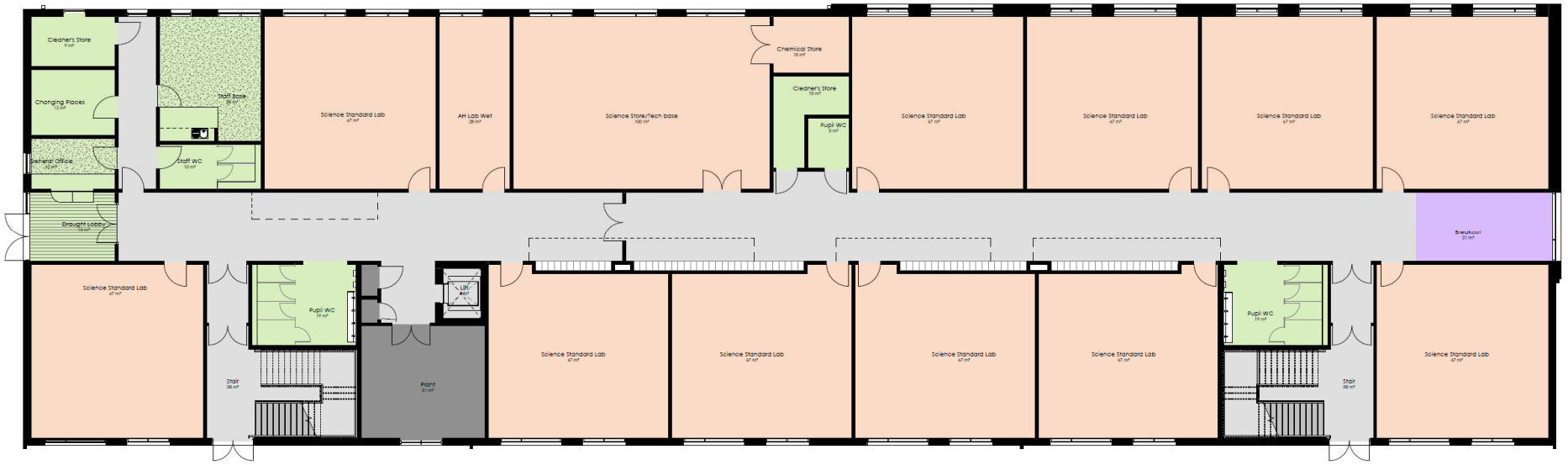



First Floor Plan




Ground Floor Plan

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