MANNINGELLIOTT
PARTNERSHIP

Proposed Woodland Luge Track

Blaze Fell Woodland, Armathwaite

Design & Access Statement

August 2021

Introduction:

This Design and Access Statement has been prepared in support of a Planning Application for the use of land at Blaze Fell for an outdoor recreational luge track with ancillary operations facility, chairlift and parking provision.

The 840m luge track will be situated unobtrusively within an established maturing managed woodland, and comprises a discrete 3m wide hard-surface that meanders down this hillside underneath the canopied chairlift.

An ancillary operations facility and parking area is to be located at the top of the track adjacent the woodland on open field within the profile of the hillside as it rises to the summit at Blaze fell quarry.

Contents:

Pre-Application Consultation:

A formal pre-application enquiry was made to the Planning Officer at Eden District Council, who supplied valuable feedback regarding main policy provisions, issues and the scope of the application.

The County Archaeologist was consulted on the requirement for further investigation, and accordingly an archaeological study was undertaken.

The County Council (Highways Authority) was consulted through its formal pre-application consultation process regarding the approach to and scope of the submitted Transport Assessment.

Site Context:

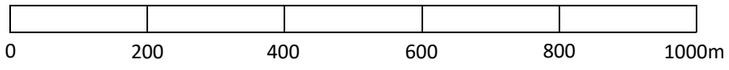
The site for the proposed development is nestled into the northerly face of Blaze Fell.

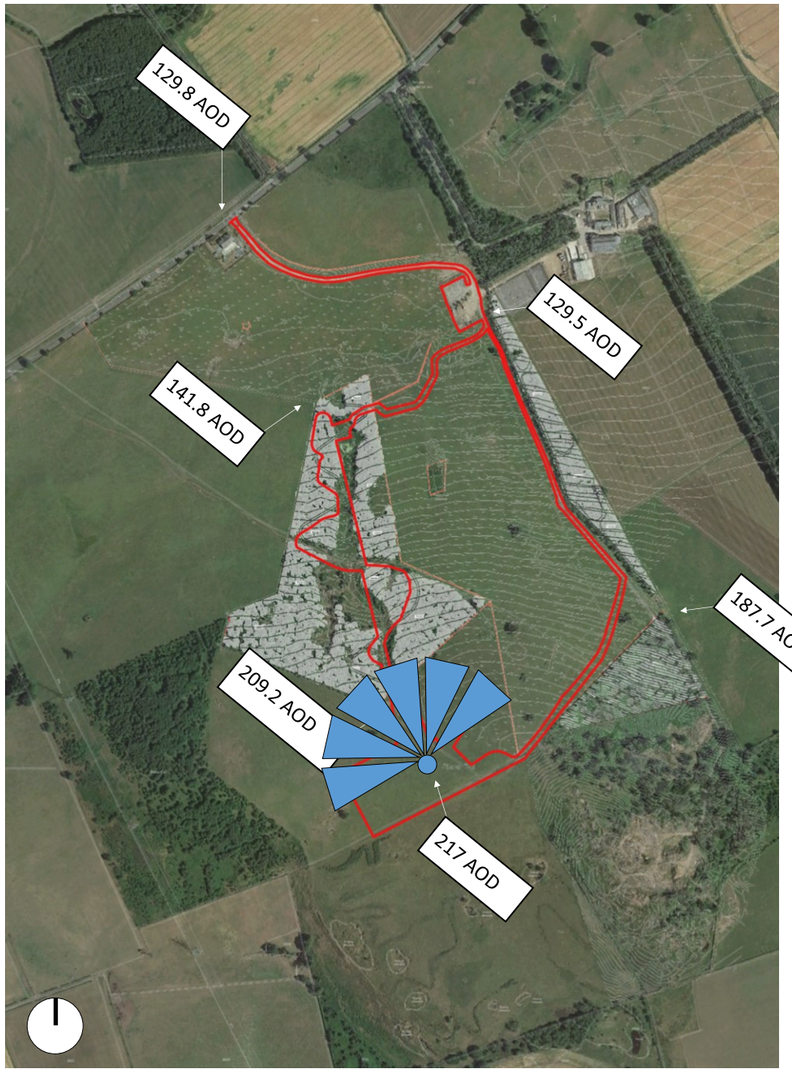
The principal approach to the site is from the A6, to the West, at Low Hesket and from there via the C3072 (Low Hesket—Armathwaite road).

The existing use of the land and the adjacent land in the immediate vicinity of the proposed site comprises of agricultural land and various configurations of native forests, which will provide natural screening of the proposed development.

The adjacent image illustrates the general layout and disposition of the proposal, notably the existing access off the C3072, the existing perimeter quarry access road, and the operations facility and parking area sited above (south of) the woodland luge track, within the profile of the fell.

Scale Bar:





Access

The site is accessed directly from the C3072 via the existing access. From there the existing road crosses even land before rising steeply up the 'quarry road' alongside the wooded perimeter before branching across the face of the hillside to the operations facility and parking area located above the luge woodland.

Topography

From the level access and along the bottom field road, the gradient begins to rise from the entrance to Nord Vue (129m AOD) up to the operations facility at 217 AOD.

A good vantage point is found in front of the proposed operations facility, from where views reach the valley opposite, with longer views either side: NW across the M6 to the Lakeland fells and NE in the direction of Armathwaite.

Existing Landscaping

The existing landscape of Blaze Fell (and Nord Vue Farm) is heavily-influenced by human intervention that transformed a once open and featureless bluff of semi-improved and poor quality heathland into a more intense, feature-rich environment comprising planned, managed woodlands, leisure activity, and an approved holiday-park. The location comprises of broadly 4 distinct areas:

1. Planted Woodland
2. Open Pasture
3. Land surrounding former Quarry (disused) - County Wildlife Site
4. Holiday Lodge Accommodation & Equestrian Centre

Scale Bar:

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Site Analysis

Proposed Development

The application is for a new leisure facility integrated within an enhanced landscaped setting and will comprise of the following:

- Woodland Luge Tack with Chairlift
- Operations Facility—Multi-Purpose Building (reception/ administration/ amenities/ cart store & maintenance workshop)
- An upgrade of existing roads and creation of small sections of new roads and parking areas ancillary to the development.

Woodland Luge

'Luge' is the French word for 'Sledge' and the activity of 'Luge-ing' involves a gravity fed activity that provides the users with full control of their decent on a purpose built concrete track. The activity was established in Rotorua, New Zealand, in 1985 and has become a popular recreational activity in many international locations but has not yet been introduced to any European sites.

Operations Centre

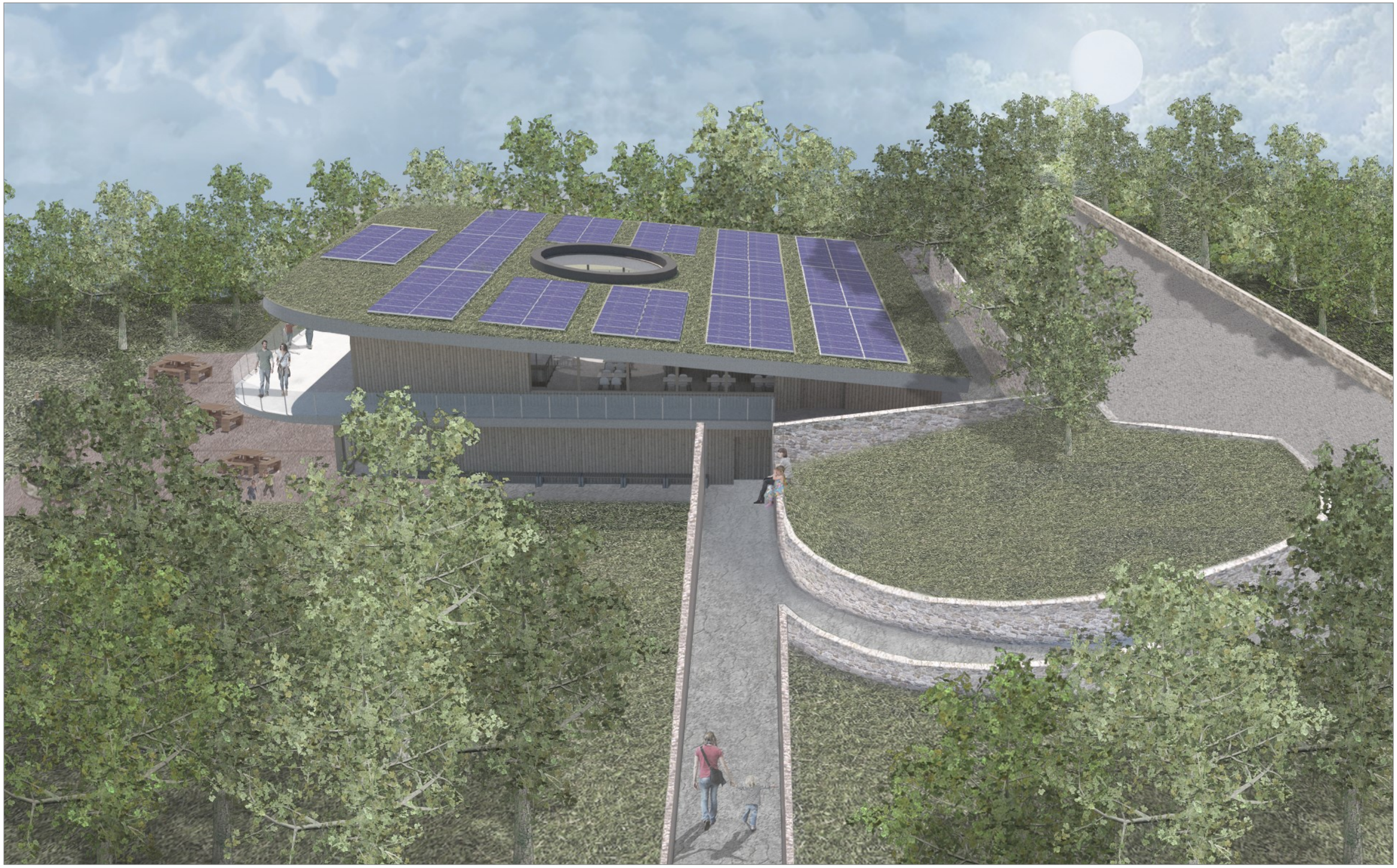
The brief was to create an attractive, public building, nestled within the existing landscape to efficiently support the luge activity and provide a unique and exhilarating experience. It will provide a single operational hub comprising of a *Reception Area, Offices for Administration and Booking, Public Toilet Provision, Workshops for maintaining Luge equipment, Storage, Catering and a Balcony to provide a viewing platform.*

The building form presents a legibly simple form with pronounced horizontality conforming the natural profile of the parent hillside and will utilise natural and locally sourced materials to their full potential. Sustainability is at the forefront of this proposal as the building is located in an isolated, rural location some distance from existing services and public infrastructure. These factors have therefore driven the design of the building towards a self-sufficient and carbon neutral project—notably a large roof area with a photovoltaic panel array to provide power for the building.

The location of the proposed building has been carefully considered in relation to the existing site and the layout of the proposed Luge track. It will be located at the head of the track, on the hillside. As the design of the building has evolved, it has responded to the nature of the site, which meant it could be built into the landscape, reducing its mass and visual impact.

The rear of the building faces South to collect maximum solar gain, whilst the public areas face North, down the slope overlooking the Luge track. The front of the building houses predominantly public facilities such as the reception area, café, and public toilets. Towards the rear and southern aspect of the building, it will house the private and functional servicing areas, which require limited natural light and access.

The siting of the building informed the choice of materials that are proposed to be used in the construction of the building. Natural stone, from the local quarry would be used at ground floor level to ground the building as part of the hillside with retaining walls holding back the earth around the building. The first floor will appear to be much more lightweight with large areas of timber cladding and glazing to maximise light penetration in public areas and the views overlooking the Luge track. Timber cladding is also proposed to be used internally on walls and floors to carry the theme of natural materials on the façade inside the building, particularly in publicly accessible areas.



The Operations Facility envisaged as a 2-storey building with an approximate footprint 20m x 20m

Perspective of Operations Facility

Perspective of Operations Facility

Aspirations for Sustainability

The development has been designed from the outset to maximise sustainability and utilise sustainable systems where possible. It will comply with the requirements of the current Building Regulations at the time of submission of the detailed design proposals.

The scheme will utilise a “fabric first” approach to detailed design and construction which shall seek to reduce energy demand across the site. This will include high levels of thermal insulation (wall, underfloor, roof and cavity) and constructing the building into the landscape. Large areas of glazing will maximise natural light and reduce the need for artificial lighting during opening hours.

In addition to fabric performance, the air tightness of the building is extremely important and will be maximised where possible to reduce the annual heating and cooling demand thus reducing maintenance and life cycle costs for the building. Ventilation systems will ensure there is a regular cycling of fresh air into the building with heat recovery systems extracting waste heat and reusing it within the building.

Renewable Energy Generation

In response to the rural location that is off grid and without direct access to public infrastructure, the energy generation for this project will rely upon a large array of solar photovoltaics (PV), which in conjunction with the latest energy storage will provide renewable electrical energy to power the new development.

The electrical installation will also include efficient measures for saving electrical energy in all areas of the development. It will include looking at saving on the use of artificial lighting. Control of the lighting will vary throughout the site but a combination of movement sensors, absence sensors and daylight sensors will be employed where practical to reduce any unnecessary consumption of electrical energy. External lighting will utilise LED luminaires and will include control measures such as photocells and timeclocks so that the lighting is only operational when required by the development for user use or security purposes.

The heating system for the building will be supplied via ground source heat pump trenches on adjacent land , under the carpark. There will also be smart heating controls installed throughout the building to minimise excessive use.

Wastewater Treatment

It is proposed that a reed bed waste water treatment plant will be utilised. It is a high functional efficiency eco-friendly waste water treatment plant that has a lower cost and lower carbon footprint in comparison to conventional wastewater treatment methods.

Transportation

The aim is to reduce the use of private cars by encouraging more public transport. This will be achieved by utilising a shuttle bus from the local railway network and the local bus stop. The provision of discounts for people arriving by public transport or bicycles will also be utilised to encourage this aim. Cyclists can store bikes at the foot of the slope and continue by chairlift .

Zero Waste

In order to achieve zero waste on the site, there will be no single use waste including; food and ticketing services. It will also be achieved by reusing materials that are already present on the site in terms of construction materials, such as stone, spoil and wood.

Luge Track and Transport

The Luge carts are fuelled by gravity so are virtually silent. The uphill transport associated with the Luge track will involve an electric chair lift in order to minimise the carbon footprint. The Luge track itself has been designed to run within an existing woodland utilising in part an old quarry track. This ensures that it will be visually unobtrusive from the surrounding areas.

Community

In order to encourage community cohesion, complimentary rides will initially be provided to the local community. Thereafter, ongoing discounts for the Luge will also be provided. As well as initiatives for the local community, complimentary visits for school’s science classes will also be provided as this development will provide engaging lessons regarding gravity, friction, kinetic and potential energy.

Employment

The proposed development will initially create approximately 15—20 quality jobs for local residents, which will include training. The applicant is an accredited living wage employer. Employment opportunities will include office, grounds, reception, technical and managerial roles.

As the UK currently lacks fully sustainable attractions, this project will therefore provide a great opportunity to successfully tick all the boxes.

Operational Considerations

Customers will book online utilising a Booking System before arrival. They will choose a date, a time slot and then pre book and pay online. The system shuts each time slot off as they become full. In this way traffic arriving and leaving the attraction is predictable, controlled and manageable. Dynamic pricing will also be employed to spread the demand.

Visitor management is key to the efficient running of the facility, the quality of the service and experience provided, and the minimising of external impacts on traffic and the general amenity of the area and its occupant. The applicant has prepared a dedicated Visitor Management Plan to complement the commissioned Transport Assessment which together directed economic parking provision.

Provision is made for two 56-seat coaches and a shuttle bus for pickup/ drop off service from Armathwaite and Carlisle station and Carlisle airport, will further encourage reduced private car reliance.

Accessibility

The site topography presents significant challenges to ensure the building, its facilities and the site are accessible to all persons. The proposed development will therefore include an upgrade of the existing roads and the creation of small sections of new roads and parking areas ancillary to the proposed development.

This attraction will be fully accessible to people with most disabilities. Specially adapted carts will enable people with moderate disabilities to enjoy the exact same experience as the able bodied users.

Utilities

The generating capacity will be sized to render the whole project carbon neutral. This is in line with Innovate UK's policy, a British Governmental organisation.

Water Treatment

The reed bed wastewater treatment plant will be implemented in a correctly sized reed bed set within existing woodland. Cleaned water will enter a soakaway below the woodland.

Noise Impact

There is minimal noise associated with this development. The luge carts are gravity fuelled and the sound of people's voices are significantly far away to have any impact on anyone living locally.

Carbon Footprint

This attraction will operate as a carbon neutral company. The main energy requirement is returning the Luge carts and their riders back to the top of the track. This will be achieved by utilising electric chairlifts.

A fabric first approach to reduce the heating loads combined with use of appropriate renewable technologies will allow the generation of enough electricity for the visitor reception, minibus charging and the charging of eCars driven by guests and staff.

The development also complements a wider long term strategy with afforestation and rewilding across the whole farm, creating a carbon sink.

Summary / Key Benefits

- Towards Carbon neutral
- Visually anchored by existing features—unobtrusive
- Zero waste
- Customer flow rates controlled by online booking system
- Local economy driver
- Accessible to all, regardless of age and ability range.
- Community cohesion initiatives
- Promoting public transport by operating shuttles from local train and bus stations
- Small scale, low impact and renewable energy generation
- Local operators and local contractors
- First Luge track in Europe
- Desire to deliver a professionally operated, world class attraction