

Bakery Development

at Newton Dee, Old Ferry Road site

Introduction & Project Background

Introduction

Newton Dee is an intentional Community living and working with adults with Special Needs.

The application site forms part of the Newton Dee Village, a Camphill Community providing homes and employment for adults with learning disabilities and other special needs, as well as co-workers and their families. The residents live within homes of Multiple Occupancy on the estate together with long term co-workers and short-term co-workers.

In 1960 Newton Dee was established as an Intentional Community of people living and working together with adults with special needs. The houses are registered with Aberdeen City Council as Houses in Multiple Occupancy. The estate extends to around 120 acres in total.

The estate comprises of various size houses, farms, shop, café various workshops.

The existing buildings are clustered around the main estate drive in a North to South direction from North Deeside road to the central green space with the central Community space, Phoenix Community Centre, Newton Dee farm, the bakery and Confectionery and Raphael therapy centre.

Project Background- Bakery

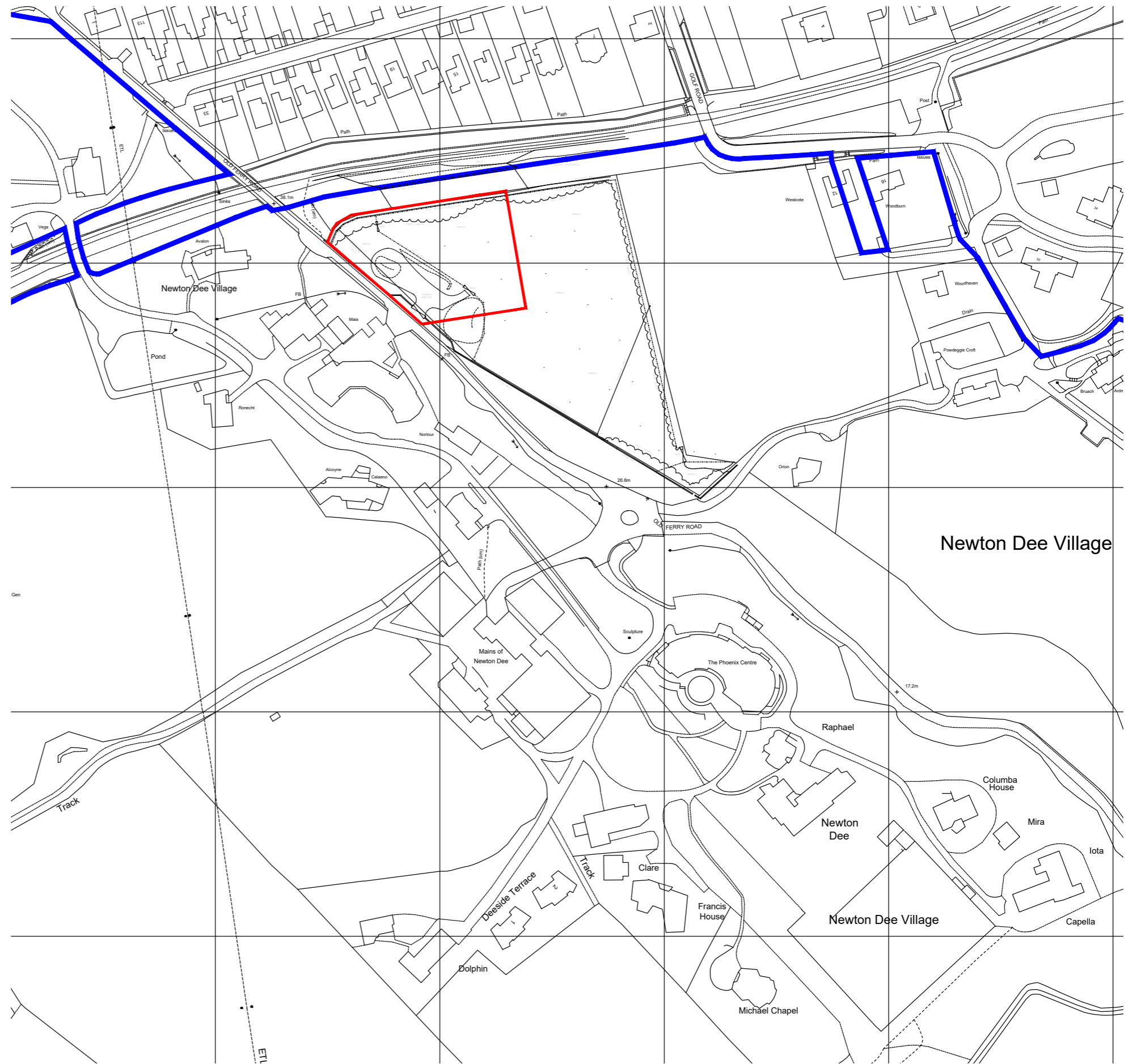
The Bakery within Newton Dee is a well established workshop, which provided organic, artisan baked goods to Newton Dee and the wider community.

The current building location is not practical for the workshop, as there are regular delivery vans & lorries coming in to the heart of the community.

There is also a lack of accessible storage & working space, which limits the amount of Newton Dee Residents who can work in the space, as well as output from the bakery. There is an opportunity to form a central public access area opposite the Café & Store, which is easily accessible to the public via Old Ferry Road, as well as the Deeside Way. This could also have a dedicated delivery route to minimise HGV traffic into Newton Dee, and improve the pedestrian safety on site.

This also allows the existing Bakery building to be refurbished & repurposed to create more accessible day placement workshop spaces.

The chosen site to carry out the study is on The Old Ferry Road, adjacent to the Café & Store, with the aim to create a strong relationship to the public buildings within Newton Dee and to encourage continued social interaction. The proposed site has been used by the farm for grazing and growing field vegetables. In the last decade part of the site has been used as overflow car parking and a store for farm material & plant.



Site SWOT Analysis

The site lies on Old Ferry Road, which is the main public access into the Newton Dee Camphill Community, as well as access to the River Dee.

The site has had multiple uses, from agricultural, equipment storage and community material storage.

The site is bounded by mature trees to the north, with community planted hedging & trees to the east to provide a natural boundary to the field on the east.

The southern boundary is formed by the aqueduct which runs into Aberdeen City, which forms a development buffer zone.

The western boundary is a dry stone wall, with openings formed for access into the field and storage area.

Strengths

The site is in a prominent location, on the main access route to Newton Dee. Newton Dee cafe & store sit opposite the site, and allow for clear links to the public areas of Newton Dee.

There are clear areas within the site which can provide a protected southern facing aspect for community and social spaces.

Weaknesses

The location of the mature trees and aqueduct on the site greatly restricts the develop-able area on the site. Care is to be taken to ensure that development is clear of the tree influence zones.

The exact location of the aqueduct has been investigated as part of the project to allow for certainty in locating the building, and ensuring sufficient depth is provided to allow for any roads/ access routes.

Opportunities

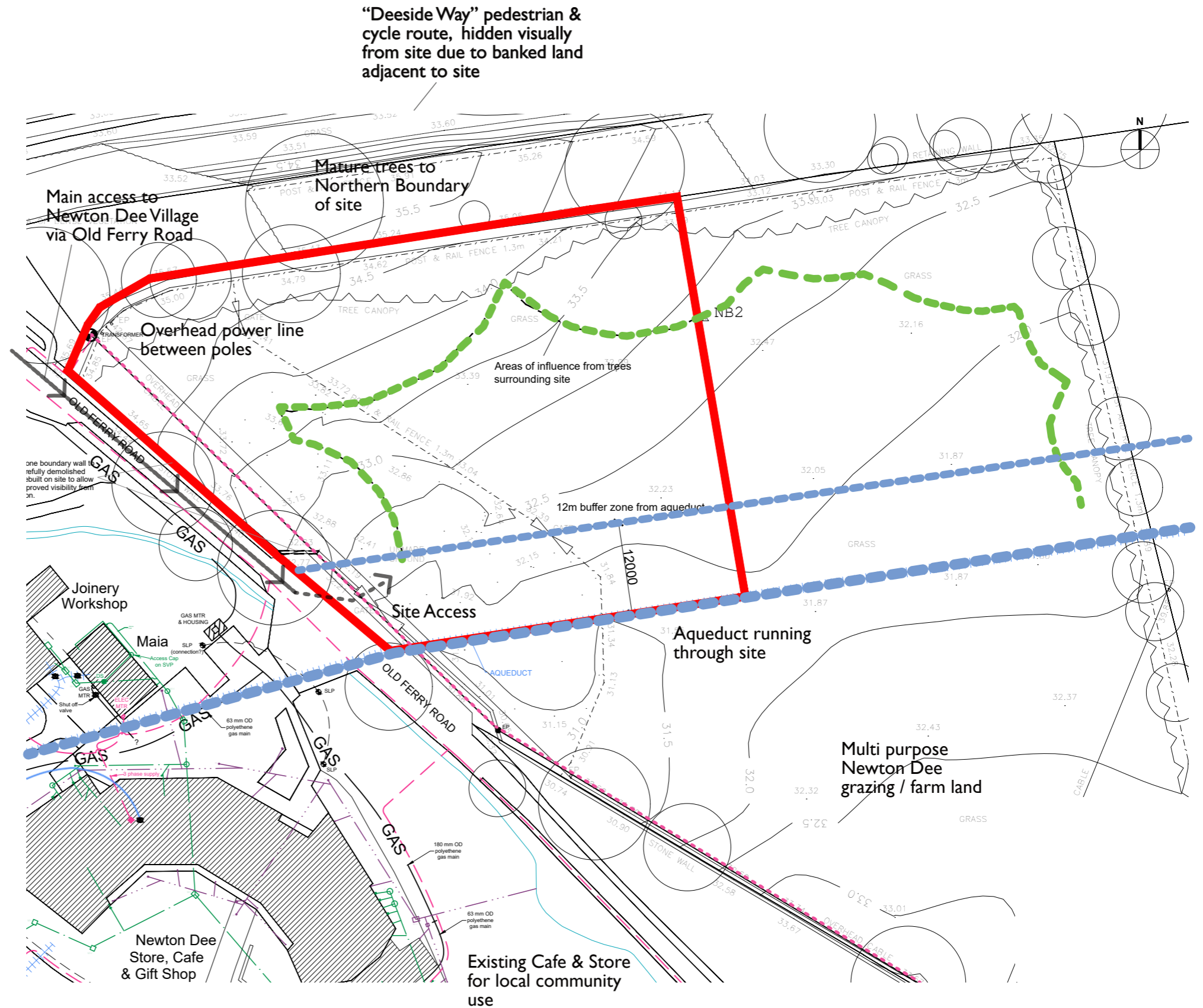
The site access allows for delivery access as well as service and emergency vehicles onto the site, providing some relief to the single track element of Old Ferry Road.

A clear relationship between the bakery & cafe / store is to be encouraged as this can enhance the outward looking, community engagement element of Newton Dee, while freeing up the area at the heart of the village from delivery vehicles and making a safer "pedestrian first" environment.

Threats

The proximity to the access to the Deeside Way and Old Ferry Road mean that active security measures are important.

Deliveries will have to be carefully managed to Old Ferry Road. This is already the case for the existing bakery but will concentrate activity at the junction to the cafe/ store in early mornings.





View of the Site from Southern Boundary looking North



View of Site Entrance from Cafe Car Park



View from the Eastern Boundary

Newton Dee Camphill Community - Bakery Development



Site Proposal

Boundaries & Thresholds

- Currently the site has a range of boundaries, with a clearly defined edge on three sides. The Northern Boundary provides a clear, natural boundary as well as screening to the Deeside Way. The other natural boundary separating the site from the adjacent field could be strengthened by further planting. There is a dry stone wall to the west of the site which leads towards Old Ferry Road and Newton Dee Café, which clearly defines the boundary while the hard man-made boundary acts as wayfinding for links into the wider community.

Energy & Sustainability

- The design philosophy aims for a “fabric first” approach. We aim for the in-built, static components such as thermal fabric performance, air permeability, fabric extents and orientation to minimise the energy requirements on the Bakery.

- Natural materials will be used where possible in the building fabric to minimise the carbon footprint of the initial building, while exceeding the Building Regulations in terms of thermal performance to create a low energy building, which combined with renewable energy and heat recovery will provide a bakery with significantly lower energy use than the current building, which can be re-purposed for use within the community.

Massing & Roof Form

-The proposed massing reflect the creation of a public-facing zone within Newton Dee. The building is single storey, with low lying eaves at the entrance to create a clear, legible entrance, while allowing a larger space, commercial scale delivery entrance for bulk goods to the bakery.

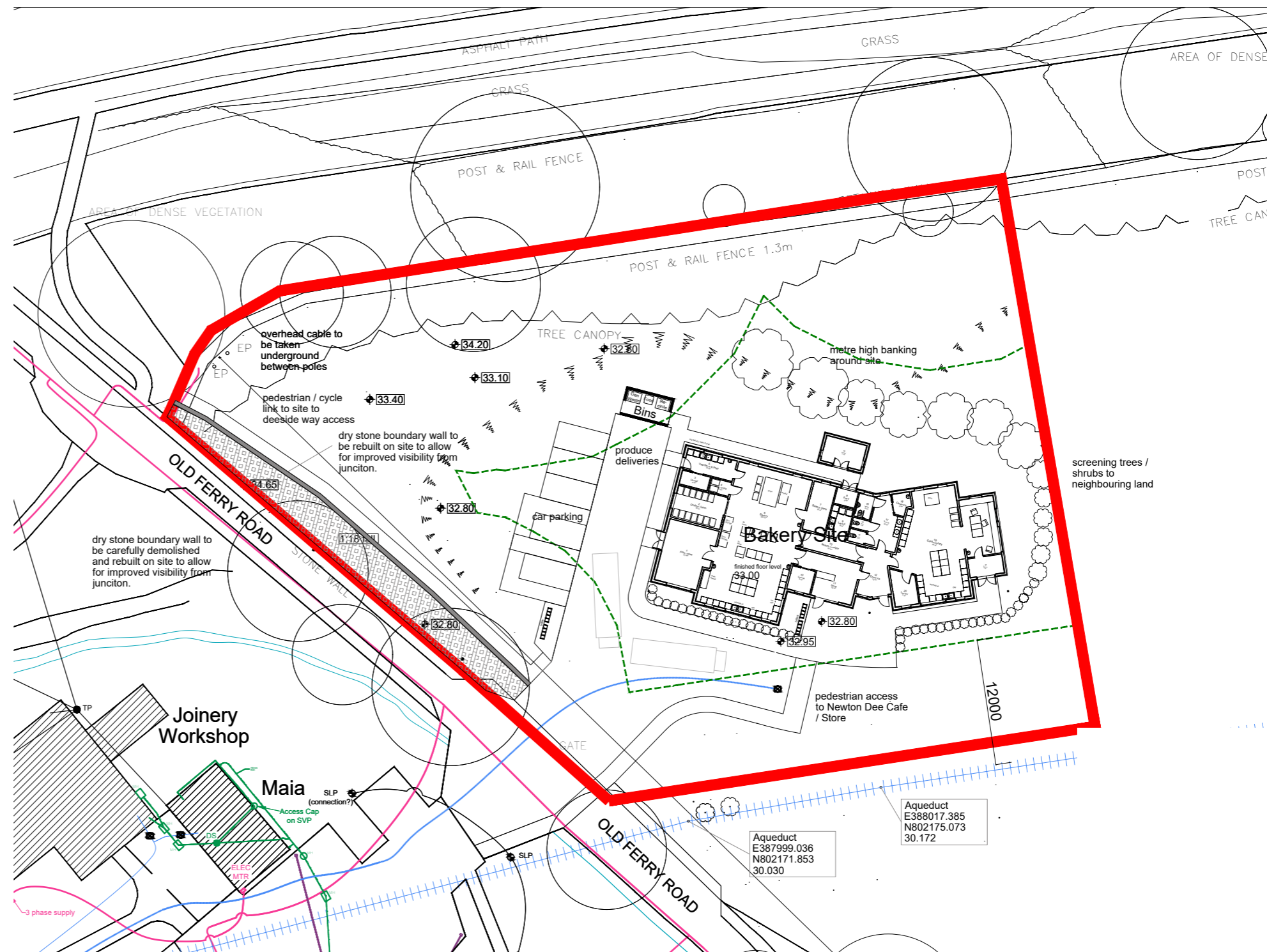
-The building form angles into the site, opening up towards the south, which is a reflection in form of the Newton Dee Café & Store which sites opposite.

Materiality

-We have sought to create a balance between the industrial / commercial nature of the bakery building, with the woodland bordered setting within Newton Dee.

-We have a hard wearing, recyclable standing seam metal roof, with a mix of smooth render and timber rainscreen cladding to ensure there is an approachable aesthetic, as the bakery is as much a training and life skill development workshop for adults with additional support needs as it is a commercial endeavour.

-The colour palette has been selected to compliment the Newton Dee café & store, while using more hard wearing material where required for the workshop elements.



Tree Preservation & Ecology

Following pre-application advice from Aberdeen City Council Planning, EnviroCentre Ltd were appointed to carry out a Tree Survey & Protection Plan, as well as an Arboricultural Impact Assessment and Preliminary Ecological Appraisal for the site.

This allowed for a considered approach for siting the proposed buildings, while ensuring residential floorspace was outwith tree impact zones, while minimising the building footprints of non-residential buildings within the impact zones of trees.

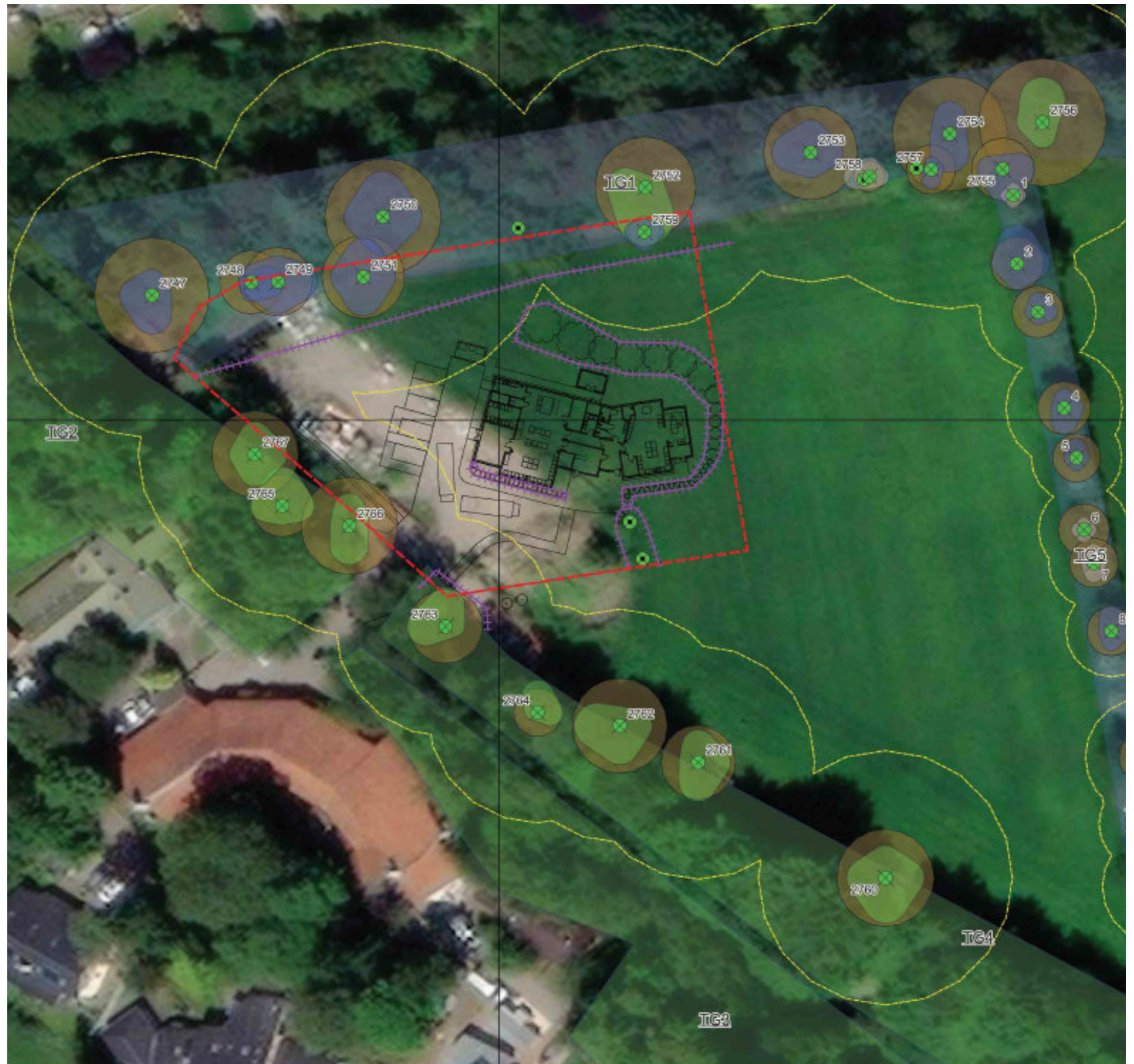
The approach for the landscape zoning was also based on the feedback from the reports to encourage bio-diversity and surface water drainage.

Tree Survey & Protection Measures

While no trees over 150mm on site are to be removed as part of the application, care is to be taken to protect the trees adjacent to the site. The tree protection will be carried out in line with the EnviroCentre recommendations to ensure safe distance from trees for construction activity.

Ecological / Habitat Report & Protection Measures

- All compensatory planting to meet a minimum 1:1 ratio (2:1 preferable) of trees replanted to trees removed (or area for groups). Select a diverse species mix that is native to the area, meets local approval, and has an appropriate hardiness for the climate
- New planting should be located to ensure adequate space is allowed for future growth (to maturity) of root systems, stems, and crown structure. Due attention must be paid to potential direct conflict with structures, services, general access, views, and sunlight provisions throughout all seasons taking into account full leaf cover.
- Where possible, planting should be located to maintain and enhance connectivity for wildlife across the site and into the wider area.
- Tree protection barriers must be erected around areas identified for new planting to ensure the soil substrate is not degraded prior to planting new stock.
- Planted trees should be of high quality and planted in clean and fertile soils.
- Employ tree guards to protect young trees from animal browsing.
- Annually inspect the survival of the replacement stock for the first five years after planting. Replace dead stock discovered during the inspections. Repair or remove any damaged or obsolete tree guards discovered during the inspections.
- One final inspection 10 years after planting targeting 100% survival of all stock planted. If 100% survival is not achieved in the 10th year, additional planting and monitoring will be required.



Habitat Survey

To compliment the ecological and arboricultural surveys, Astell Associates carried out a Habitat Survey of the site including boundaries.

They noted the following in terms of Habitats:

The site consists of 2 areas, a grass field to the east and a hardstanding carpark area to the west.

The field comprises predominantly unimproved neutral grassland with ruderal herbs along the field margins to the north and west and interspersed within the field. The field is currently being grazed by sheep.

The car park consists of hardstanding with ruderal herbs on all boundaries and interspersed across the area.

The land has low ecological value, and the proposed development will not remove any valuable habitats.

In terms of Protected Species, they summarised:

The site and adjacent northern woodland and hedgerow to the east were surveyed for red squirrels, badgers, otters, breeding birds, amphibians, and reptiles. An assessment was conducted for each protected species to determine how the proposed development will affect them.

The local red squirrels will not be impacted by the proposed development as there is no physical evidence of red squirrels on site, preferred sheltering habitat, or foraging opportunities.

The site does have foraging opportunities for badgers, but there is no evidence of badgers found within the site or within a 30m radius of it. The site is well fenced which will deter badgers. There are many similar agricultural fields in the area with good habitat connectivity and foraging. The proposed development will not impact the local badger population. The proposed development may impact bats by removing foraging habitats and increasing light pollution. Recommendations have been made to limit the impact of the proposed development. It is recommended that exterior lights are downward facing and are either set on a timer or motion-activated to reduce the development's light pollution. Bat boxes could also be incorporated into the design to increase roosting potential in the area.

A survey found that there was no evidence of otters. This is to be expected as the proposed site has no preferred habitats or foraging for otters due to a lack of water bodies or connectivity. The proposed development will not impact the local otter population.

There is a patch of gorse along the northern wall that would provide good nesting and foraging habitat for small birds. The rest of the site consists of a grass field with sheep grazing and a carpark with heavy machinery stored in it. Neither of these sites will provide good nesting opportunities due to the high levels of activity present. There will be no negative impact from the proposed development on birds.



Figure 3. Phase 1 habitat map of site. The red dashed line to the east represents Target Notes.

Flood Risk & Drainage Strategy

As it was highlighted that the areas surrounding the site are noted as a flood risk, a survey was commissioned to ensure that mitigation was taken within the site where required. Envriocentre were commissioned to carry out a thorough flood risk survey, which included consultation with Aberdeen City Council & SEPA for notes of historic flooding in the area and surrounding the site.

The detailed survey put forward recommendations for the site and drainage strategy which would mean that the site is adequately protected from flood risk, which have been incorporated into the design.

Ramsay & Chalmers then carried out the drainage design and produced a drainage impact assessment, which used the outcomes of the flood risk survey to ensure that there is minimal impact in line with recommendations.

The surface water drainage was designed to work along side native planting and porous parking surfaces to allow for large areas of free drainage, while limiting the areas of non porous tarmac to the heavily trafficked area.

Transport Strategy

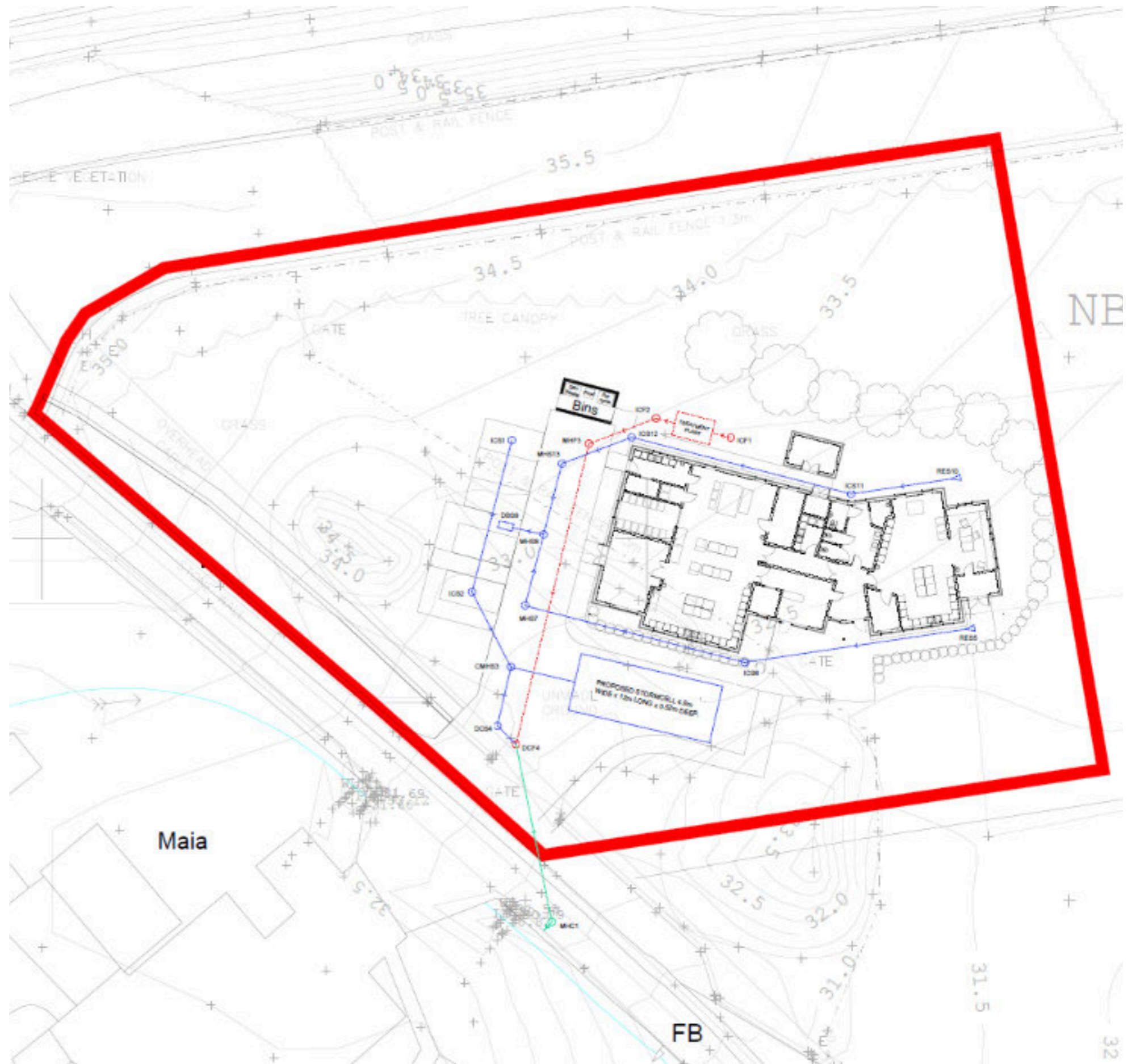
Following pre-application advice from Aberdeen City Council Planning, a transport strategy was carried out for the site.

One of the major factors in locating the new bakery on the Old Ferry Road site is to allow for less vehicular traffic into the centre of the Newton Dee Community.

Currently there are weekly flour deliveries into the bakery, which is located at the centre of the village, which can cause safety issues for vulnerable adults with additional support needs.

By relocating the bakery to this site, there is a greater level of control for deliveries, without increasing the level of large delivery vehicles on Old Ferry Road.

The access is designed to allow for a turning head off of Old Ferry Road for deliveries as well as bin lorries & emergency vehicles.



Newton Dee
Main Drive

Newton Dee
Café & Store

Old Ferry Road

Existing Housing
on Marchbank Road

Proposed Bakery &
Confectionery



Newton Dee Camphill Community - Bakery Development

CA+D



View of Newton Dee Store Carpark

Newton Dee Camphill Community - Bakery Development