



Design Review Report

Ysgol Arbennig Meirion Dwyfor,
Snowdonia Business Park
30th January 2014



Declarations of Interest

Panel members, observers and other relevant parties are required to declare **in advance** any interests they may have in relation to the Design Review Agenda items. Any such declarations are recorded here and in DCFW's central records.

Review Status

CONFIDENTIAL

Meeting date	30th January 2014
Issue date	17 th February 2014
Scheme location	Snowdonia Business Park
Scheme description	Special Educational Needs School
Scheme reference number	34
Planning status	Pre-application

Declarations of Interest

None Declared.

Consultations to Date

Formal pre-application discussions with Gwynedd Council are planned for mid-February. An ongoing programme of consultation with Staff, planning officers, Social Services, the Health Board, teachers, governors, parents, pupils and the public is in place.

The Proposals

Gwynedd Local Education Authority is seeking to develop a new Special Needs school for up to 100 pupils in the age range 4-19, who have learning and/or physical disabilities, together with 60-70 members of staff. This will replace existing outdated and inadequate provision at disparate locations in the County. The new school will serve a very large catchment area encompassing the whole of Meirionnydd and Dwyfor (The Llyn Peninsula), with some children having journeys of over 20 miles to and from school each day from remote isolated locations.

The LEA has consulted extensively with staff, parents and young people on what functions and spaces the building should include and how it should be operated. A specific brief requirement is for Respite Accommodation for children and young people to stay overnight or for extended periods. This is required on the same site but it should be designed and sited so as to have a separate identity from the school. Other key elements of the brief include full accessibility, flexibility of design to allow for a range of permutations for using the school (e.g. according to Key Stage or according to nature of disability and needs), and the ability to offer the LEA an 85 pupil option or 100 pupil option.

The procurement method for the new school will be 'Traditional', to ensure that design control rests with the architect and client throughout the project.

The site commands an elevated and prominent position in relation to the remainder of the Business Park, with views to the mountains to the north.

Summary

- It is encouraging to see the desire to create a good quality learning environment through the design of this school building and landscape. The site selection, building design and landscape design have been well-considered and integrated, although there is still work to be done and details to be resolved before a planning application is made.
- The boundary treatments and fencing must provide safety and security whilst being aesthetically and functionally integrated with the landscape and building design. Improved landscape design should work to soften the impact of the large car park.
- The siting, architectural identity and detail of the respite facility needs further work to make it homely and distinct from the school building.
- Environmental modelling will be useful if it is done accurately. Enough space must be allowed for the biomass plant and associated deliveries.
- The rhythm, scale and functional nature of the roof pop-ups make a positive contribution to the building and help to express a key concept that underpins the building design – that each classroom is a ‘house’ for a small number of children.
- Everything possible must be done to keep the quality aspired to in the designs. The materials and detailing must not be subject to ‘value engineering’.

Main Points in Detail

Site Selection

Gwynedd Council have undertaken a thorough site selection process for the school, focusing on the two main settlements that are central to its catchment area, Porthmadog and Penrhyndeudraeth. The selected site, on a Business Park in Penrhyndeudraeth was considered suitable for a number of reasons. The original vision for the Business Park stemming from the 1990s was not fully realised, and this project therefore presented an opportunity to utilise the remainder of the site. Importantly, the principle of this in planning policy terms has also been acknowledged by planning officers.

The reason for choosing the site is therefore understood, and the designers have responded to the challenge of a sloping site. The landscape features present on the site offer opportunity for a variety of outdoor learning environments.

External Spaces

The car park space could be considered in more detail, thinking about the sense of arrival. The parking and drop off area for a special needs school is necessarily large, but

the resulting quantity, quality and design of this external space should be reviewed by the landscape architect, and softened through planting where possible.

It is important that fences and boundary treatments are a designed solution, not an afterthought. The challenge is to ensure a safe and secure environment whilst integrating with the landscape and building design.

There will be maintenance costs associated with the landscape which must be accounted for to ensure long lasting benefits to the school and its pupils.

Building Form

The Planning Officer has expressed concern about the expression of the roof pop-ups. The roof forms have been developed through the design process. They provide necessary daylight to the classrooms without the needs for large windows which would cause problems with glare and distracting pupils with views out – particular concerns for a special needs school. The Design Commission considers the current proposal for the roof pop-ups suits their function, provides a rhythm to the roof form and gives a homely scale to the building which is desired. The individual classrooms are designed as 'houses' for small class groups of children and teachers; this is an essential part of the building's ethos. The 'pop-up' roofs very clearly express this along the length of the principal elevation facing north. A wavy form would compromise the functional elegance of the scheme and would not express this central concept quite as effectively.

The internal circulation has a split level to give a sense of separation and progression between the younger and older children. This idea has been developed through discussions with school staff who have requested that the level change is enclosed with a full-height wall. The details and treatment of this element still needs to be resolved. A larger scale physical model would help to demonstrate how the level change will work. In a school where approximately 10% of the pupils are expected to use wheelchairs, any level changes must be carefully considered to ensure safety and convenient circulation routes.

The irregularity of the floor plan means that some of the junctions are more complicated than for an orthogonal building, leading to different shaped spaces and potentially higher construction costs. However, the organisation of the pairs of classrooms relates to the natural contours of the landscape, and there was a desire to avoid a linear, institutional appearance.

Respite Facility

It appears that the respite facility has not been considered in as much detail as the school building, which may be due to the brief for this facility being less fixed at this stage. There are benefits to having the respite facility on the same site as the school, but it should not be seen as an off-shoot of the school building, but rather have its own distinctive identity. It needs to feel homely and be integrated with the landscape design.

Environmental Strategy

An exciting and positive approach has been taken to the environmental strategy both inside and outside the building.

It is good that environmental modelling and testing is being carried out. This must include details such as the external overhang, window/vent opening restrictions and overshadowing by trees and landscape to give accurate results.

The thermal strategy, which makes use of the thermal mass of the concrete structure to even out changes in temperature, is well-suited to a special needs school where some pupils will be more sensitive to temperature change.

The designers must ensure that enough space is allocated for the biomass energy centre, as large areas are required for fuel delivery and handling. This should be integrated with the landscape and building design.

Design Quality

It is important that everything possible is done to maintain the quality aspired to in the design, construction and maintenance of the scheme. The client must be careful not to enter into a post tender 'value engineering' exercise which would undermine the quality of materials, details and the landscape design. The Traditional procurement route will help with this, as well as support from the Local Authority and community.

DCFW is a non-statutory consultee, a private limited company and wholly owned subsidiary of the Welsh Government. The comment recorded in this report, arising from formal Design Review through our Design Review Service, is provided in the public interest for the consideration of local planning authorities as a material consideration, and other users of the Design Review Service. It is not and should not be considered 'advice' and no third party is bound or required to act upon it. The Design Review Service is delivered in line with DCFW's published protocols, code of conduct and complaints procedure, which should be read and considered by users of the service.

A Welsh language copy of this report is available upon request.

Attendees

Agent/Client/Developer: Geraint Owen, Gwynedd CC

Architectural/Urban Designer: Nick Ruff, B3 Architects
Bruce Massie, B3 Architects
Peter Styles, Lingard Styles Landscape Architects

Design Review Panel:

Chair

Wendy Richards

Lead Panellist

Elfed Roberts

Simon Power

Ashley Bateson

Toby Adam

Amanda Spence, Design Advisor, DCFW

Observing: Carole-Anne Davies