Barnsley Building Schools for the Future
The Dearne ALC

Design and Access Statement

December 2008



Barnsley Partnership For Learning

Introduction

This design and access statement, for the proposed new Dearne Advanced Learning Centre (ALC), accompanies the formal submission of reserved matters following the previous approval for outlining planning permission.

The proposals for the Dearne ALC have been presented and discussed with the local planning authority at a number of meetings. Due consideration has been made to address the site constraints, together with a proposal that engages a particularly tight area for positioning the footprint of the building and providing sufficient variety of external spaces.

The Planning Report for outline application for the Dearne ALC confirms that the Barnsley UDP designates the high school as an existing community facility which is also over-washed as green belt. The conclusions within the report regarding issues surrounding Green Belt Policy justify the existing site under special circumstances. The report also recommends that the new facility has a much reduced footprint than the existing, and being one building will limit the extent of development. Subsequently, by reducing the footprint of the built form there will be on balance an increase of green space.

The design solution for the new ALC provides a compact and efficient footprint which limits development within the green belt and on the sports pitches. The Planning Report also confirms that Sport England would be in support of a proposal which limits development on existing sports and playing fields, and enhances the sporting provision on the site. As such the existing area of land to the south-east of the site is to be laid out with sports pitches. This meets the criteria as specified within BB98 regarding sports pitch provision.

The statement will include;

- A context study of the existing site
- The approach to siting and landscape
- The approach to design and appearance
- Reference to schedule 5 Design Panel comments
- An overview of the access strategy for the building

Community Context

The existing school site sits on the urban edge of Goldthorpe, with the catchment area for the school also including a significant part of the Dearne Valley. Whilst considered a deprived area, there is a huge momentum within the community for change and regeneration which is evident through the developments along the Dearne Parkway and Goldthorpe Trading Estate. It is upon this momentum that the context of the new ALC will be viewed; as a positive, uplifting addition to the community. The new building will be a significant investment in the area, and will build greater integration between learning and the community. The ALC will be an aid to facilitate long term investment in the student, parents and adults of the local community. The vision and ethos of the ALC is to raise attainment through first class teaching and learning environments which can be flexible and adaptable to future demands on the curriculum. One of the School's priorities is to engage with the local community. The ALC will provide a welcoming environment to all users.



Local Setting

The existing Dearne High School site is less than a mile from the centre of Goldthorpe Village with access off Goldthorpe Road. The large site is on the urban fringe with contrasting residential boundaries to the north and west with the open countryside aspect to the east and south. The existing school buildings are set back to the north of the site, with the ICT and Technology Block to the south of the access road. The school site is also shared with the Dearneside Leisure Centre which also owns an existing multi-use games area. A large school car-park is also located close to the entrance to the south of the main access to the site.

The access of Goldthorpe Road is the only formal entrance for vehicles and pedestrians. A number of informal routes into the site have been formed through the perimeter fencing. An existing galvanised palisade fence runs around the perimeter of the site softened in places with landscape buffering, providing a level of security.

To the east, south-east and south of the Leisure Centre and car park the playing fields are laid out with the open aspect across the countryside. There is sufficient area within the soft landscape to provide sports facilities as detailed in Building Bulletin 98.

To the South of the site a stream and number of fishing ponds add to the character of the local setting.

Siting

A detailed opportunities and constraints study has been carried out on the site which has identified a number of key constraints on the existing site which clearly informs the best location for the proposed ALC Footprint.



Playing Fields

There is sufficient space to provide sports pitches in line with Building Bulletin 98 Standards, and therefore the design solution has considered how far the new ALC Footprint encroaches on to the existing playing fields. Additional land to the south east corner of the site has further extended the opportunity for sports and playing fields being brought into use by the ALC. A compact and efficient building footprint has minimised the impact of building on the existing school fields.

Existing Buildings

The location of the new ALC has considered the proximity of the existing Dearneside Leisure Centre, existing ICT and Technology Block as well as the adjacent buildings to the western boundary. A minimum building distance has been established between the existing residential properties and the footprint of the building, and sufficient distance has been allowed for servicing and access to the Dearneside Leisure Centre.

The proposed elevations and sections show the relationship between the ALC and the adjacent buildings. The relationship between the ALC and the neighbouring residential properties is discussed further later in the design statement.

Phasing

A single phase of construction is our preferred solution in order to avoid multiple decant of the existing school and expensive temporary accommodation. The new ALC is being positioned in such a way as to retain the existing school buildings and facilities during the construction of the new building to minimise the impact on teaching time.

The phasing also considers the adjacent sports centre. This has been developed to prevent any disruption to the access and operation of the facility throughout the life of the project, particularly during the construction of the new building.

Site Access

We will retain the existing site access for both pedestrians and vehicles with the use of the existing turning circle. Our design has been developed to ensure the mixing of pedestrians and vehicles is minimised and safe routes to the ALC are established.

Orientation

Site orientation is north-south with the sun path from east to west. Views are predominantly to the southwest round to the east of the site. The open nature of the site gives full exposure to the sun path, and to the views to the east and south of the site. The proposed position and orientation of the new ALC will provide an open aspect to the south, monopolising the southern aspect and views across the local countryside. The new ALC will carefully consider the use of Brise Soleil in order to limit glare and solar gain to the learning zones.

The Existing Building and Estate

The Dearne High School is a brick-built two storey 1950s school building with large extensions added around 1998. The plan form is based around 2 long corridors running east-west on both floors with inter-connecting links between each corridor forming enclosed, external courtyards. The old caretaker's house stands in its own grounds to the west of the main school building and currently contains the pupil referral unit. To the south of the access road the ICT and Technology provision is accommodated in a 1970s brick clad single-storey building with a flat roof over.

The existing school buildings are passed their useful life and are experiencing external envelope maintenance issues, energy leakage and heat gains which are typical of these types of building. There is currently very limited facilities for full inclusive education, particularly the less well able bodied.





ICT and technology building

There are circulation and orientation issues within the main school building due to the length of corridors, and significant health and safety issues with the remote ICT and Technology Block to the south of the access road. This means that students have to cross the service road to gain access to the ICT and technology building. Furthermore, there is no defined safe route or sheltered area between the two school buildings.

Leisure centre

The Dearneside Leisure Centre contains changing and support facilities for sports halls and a swimming pool, which are currently used by the school to deliver their sports and PE curriculum. The building has been modified and extended throughout its life, however, is in need of significant refurbishment and upgrading throughout. The Dearneside Leisure Centre is a community facility used by the general public throughout the school day.

The Existing External Areas

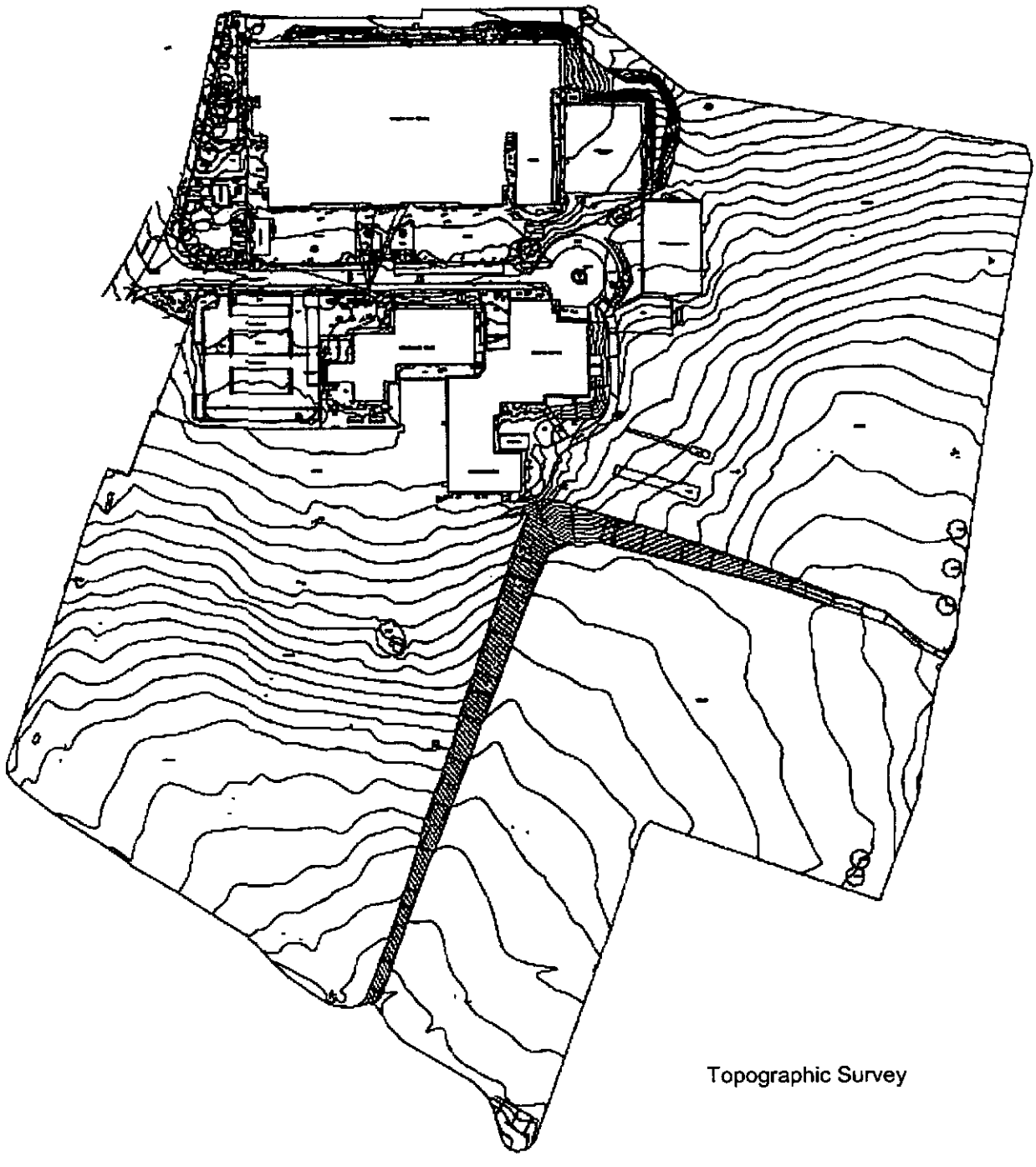
The existing Dearne High School site is some 130,967 square metres comprising mainly of sports fields but also the existing buildings as mentioned above. Sports fields are laid out with football and athletics areas, and an existing multi-use games area is situated to the north-east of the site and is owned by the Leisure Centre. The playing fields slope from north to south with an embankment to the south-east of the site, forming an area some 2.5 to 3 metres lower than the remainder of the site.

There are potential land drainage issues across the site which has been taken into consideration in the design solution.

Topography

The existing school buildings and leisure centre sit on a level plateau with the surrounding fields gently sloping from north to south. The level difference across the site is approximately 11.5m. There is an 'L' shaped embankment to the south east corner of the site creating a 2-3m level difference. The south east corner also consists of an area of scrub land at a higher level than the school fields.

The building datum will be approximately 7m above the lowest point of the site avoiding potential flood risk from the stream and ponds to the South.



Topographic Survey

Views

There are significant panoramic views to the south of the site, which the school have emphasised should be a key element of the design solution.



Visual impact

The existing Dearne High School site is widely visible from a number of different aspects. Each aspect will determine a different level of visual impact from the contrasting urban edge through to the views across the local countryside.

Travelling south from Goldthorpe town centre along Goldthorpe Road glimpses of the existing school buildings can be seen between buildings and trees. There is little evidence of the school and Leisure Centre travelling past the entrance to the site due to the mature landscape buffer and fencing to either side of the entrance and screening to the car park. There is little visual impact of the site from the urban north-west fringe of Goldthorpe.

To the north-east and east of the site an existing bridle way and public footpath run from Bamburgh Lane down the side of the East boundary to the school playing fields. The route follows a similar gradient to the playing fields, falling gently from north to south.

To the north end of the bridle path, Windmere Avenue, the existing residential properties are higher than the site enjoying similar views across the Dearne Valley. Immediately to the south of the houses is an open green space which then is fenced off from the north edge of the playing fields. The open aspect will be retained as part of our design solution, where additional sports pitches and playing fields will be laid out creating uninterrupted views and minimal impact from this north-eastern edge of the site.

Travelling along the bridle path moving further south the gradients vary, whereby the bridle path has a higher aspect than the playing fields. This allows significant views in to the site, playing fields, the Leisure Centre and car park. There are limited views of the existing school buildings from this aspect. The new ALC will have some visual impact from the south-east corner of the site, especially where the building footprint is moved passed the southern edge of the Leisure Centre.



The views of the site will also be seen from Harlington and Adwick upon Dearne to the southeast and south of the site affording views across the countryside. The design solution from this aspect will be viewed as a 'pavilion in the landscape' with the playing fields to the south of the ALC and the mass and form of the building merging into the urban context to the north.

The public rights of way also travel to the south of the site adjacent to the fishing ponds. There are a few areas along the footpath where the existing site can be viewed, mainly through gaps in the mature soft-landscaping. Again, this aspect and visual impact will be similar to the views into the site from the south-east corner, although softened through existing landscape screening.

There are limited views into the site from the south-west and west of the site due to urban build up. Careful consideration of the visual impact of the design solution has been considered, whereby the footprint of the building is compact and efficient and therefore limits the impact and openness of the site.

Existing Ecology

Most of the existing trees and hedgerows are located along the boundaries of the site. These will fall within the designated buffer zone and remain undisturbed by any construction. Immediately outside the southern boundary of the site are a number of fishing ponds and a stream which runs adjacent to the boundary fence. These areas contribute a significant ecological presence to the site despite the lack of physical connection. An area of land to the south-east corner of the site is to be included within the over all site Masterplan. This area is currently scrubland outside of the site boundary and provides little, additional ecological value to the site in its current condition.

Siting and Landscape

Site Entrance

The site masterplan has been carefully considered to create a clear hierarchy of pedestrian and cycle routes which describe principle links and access points around the site and also minimise and avoid conflicts with vehicle traffic. The masterplan is intended to highlight clear lines of movement through well defined linkages which are legible and adequately signed. Vehicle entry and circulation will be clearly marked to minimise conflict with pedestrian routes and all crossing points will be designed for pedestrian priority with appropriate traffic calming measures.

The site entrance will be shared between pedestrians and vehicles, including the existing five buses. Due to the location of the main school building entrance there is a significant mix of vehicles and pedestrians. The proposed layout provides more segregation and better defined routes for both pedestrians and vehicles. This will limit, but not eliminate pedestrians crossing the main entrance area, however will provide better crossing facilities and improve on the existing situation.

The design solution provides a raised crossing point across the entrance road to the site (2). The materials will reflect a pedestrian priority. Further detail is being produced which will further ensure that pedestrian priorities are maintained and the speed of vehicles approaching the main pedestrian crossing point from either direction is significantly reduced to enable safe passage across.



Vehicular access and circulation

All vehicles will access the site through the existing main entrance to the site. The existing road will be upgraded to provide a suitable running surface. Vehicles will travel past the front of the ALC and either;

- Turn right into the parking area and;
  - Park (5)
  - Access the service area for the kitchen (7)
  - Access the reprographics delivery entrance to the right of the main reception (12)
  - Access the service yard for deliveries (29)
- Park around the turning area for access to the leisure centre (3)
- Turn round to access the pick up and drop off area (4)

The design solution makes use of the existing turning circle for buses (3), together with a dedicated pick up and drop off area (4). This area is to the north of the car park on the same side as the school building. This immediately stops students crossing the road after being dropped off or prior to being picked up. The waiting area has been designed sufficiently wide enough to safely hold students waiting for buses.



Pedestrian access and circulation

Pedestrians will share the main entrance, and as mentioned above will be given priority on site over vehicles. Two crossing points are shown on the site plan providing access to the main entrance of school and, further to the east, access to the leisure centre.

Cycle access and storage

Cycles will access the site through the main entrance and follow a dedicated route to the west of the building. Cycle parking is provided within a secure area (15). The numbers and details of the shelters are being progressed as part of the reserved matters submission.

Siting of the building footprint

The position of the building has been generated through the context study. The main drivers include;

- Ease of access from Goldthorpe Road and views of the main entrance of the building
- Moving the footprint to the south of the existing ICT and technology building to generate one phase of construction
- Allowing service and maintenance access between the footprint and the leisure centre
- Allowing at least 20m from the nearest dwelling to the west of the site
- Minimising the amount of building on the existing school fields

This generated an area on the existing site where development was most appropriate. The detailed layout of the building evolved through educational design criteria which informed the mass, scale and form of the building.

Generating a public frontage

The building is set back behind the existing ICT and Technology Building to generate a single phase of construction. This creates a significant opportunity to develop the north side of the building into a dedicated public realm and approach to the front of the building, through carefully considered civic space design. The parking area to the north of the building has been carefully planned to avoid a mass of tarmac using a self-drained surface and sensitively soft landscape and buffer planting.



Additional screening and buffer planting has been planned along the western boundary to the existing neighbouring residential properties, together with a length of soft-landscaping to the new northern boundary in order to afford some screening to the proposed new residential development.

Supplementary landscape screening possibly in the form of vertical gardens is proposed to the East and West of the leisure centre. The mass of the building has been pulled away from the western boundary to reduce the impact of the built form on the neighbouring properties.

Landscape design principles

The underlying principles that guide the landscape design and external layout is the requirement to provide a stimulating, attractive and safe environment for pupils, teachers and visitors to the school. The master plan describes external learning zones and special landscape features which support key curriculum subjects such as the Arts, Science, Horticulture and Vocational Learning. The layout has been designed in accordance with current good practice and meets the criteria set out in Building Bulletins and Guidance Notes on Schools Grounds. It was considered not in the interests of the proper planning of the site to rebuild on the location of the existing buildings.

The site master plan has been carefully considered to take advantage of views offered by the sloping site to create an environment which is safe, sheltered and accessible to all users. The design minimises pedestrian and vehicular conflicts with dedicated routes which are clearly defined and legible.

The masterplan embraces the principles promoted by the 'Learning through Landscapes' initiative, recognising the whole school environment as a valued teaching asset that plays an important role in supporting classroom and project work.



The Dearne ALC Master Plan

Approach and civic space

The school is approached from the north through a wide boulevard which leads to the main school entrance with direct access to the car parks and bus drop off. The parking areas are placed to one side, off the main sight line and will be tree-covered. The car parking bays are to be surfaced with self draining material and not a sea of tarmac. The visual impact of the parking area will be significantly reduced through the introduction of soft landscaping and changes in level.



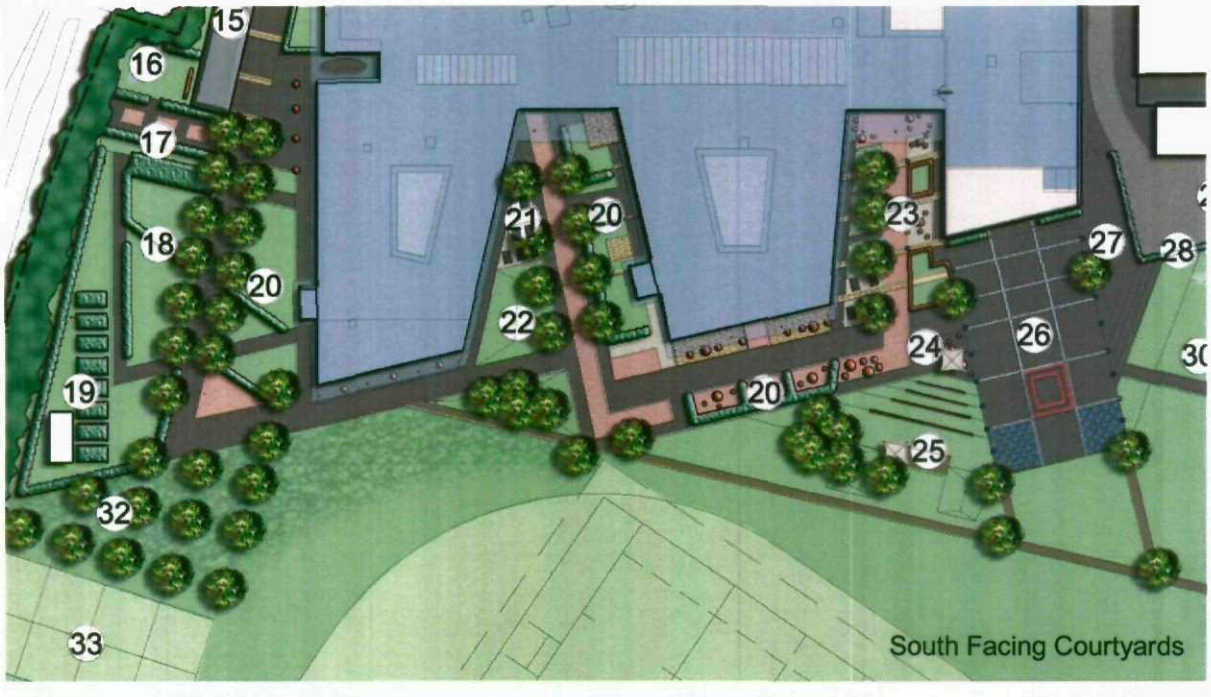
The boulevard creates a clearly defined vista through the site to reinforce visual connections to the surrounding landscape. A formal lawn separates the boulevard from the footpath route on the west side of the building. The lawn provides the opportunity for outdoor display and school artwork. These external spaces are intended to create a formal civic approach to the ALC but also accommodate supervised school activity and community events which can spill out of the building. The existing leisure centre and kitchen deliveries will be screened by planted 'green walls'.

External curriculum areas

The main hard play areas, teaching and learning zones are located on the south side of the school. The design allows for a wide range of uses, recognising the needs of different age groups and abilities and the requirement for varied outdoor activity to promote social interaction and personal development. The play areas will be enhanced with seating, planting, imaginative ground graphics, outdoor games and other landscape features which support key curriculum subjects.



The courtyards between the building wings create smaller, more intimate spaces (21), allowing opportunities for external dining (23) and social play. Canopies will be introduced to provide shelter. Outdoor classrooms (20) will be provided along the southern edge of the play area, taking advantage of open views across the playing fields. The main activity area (26) is located on the east side of the building where an open area of hard standing, enlivened with bold ground graphics, will be provided for informal games and kick-about. The hard play area opens out to the main soft play area immediately to the east. A series of grassed terraces (25) will wrap around the hard play area to create opportunities for spectator viewing and outdoor performance. Quieter areas of soft play (18) are located on the west side of the building next to the horticultural area (19) and memorial garden (16).



The master plan promotes the ethos of healthy lifestyles and fitness through the provision of formal sports facilities and outdoor exercise and training stations. Areas will also be set aside for horticulture and environmental gardens where natural processes can be explored through specialised plants and crops. A large habitat area will be created in the south east corner of the site where a range of wetland and associated plant communities will be introduced, linked to a swale provided for water attenuation.

One of the primarily aims of the planting strategy will be to significantly enhance the biodiversity of the site through native planting and appropriate management regimes which support new habitats and wildlife. Where possible existing trees have been retained and will be protected during the site works. Existing site boundaries will be retained and reinforced with planting and hedging where required.

Sports provision

The hard courts will be secured with 3.0m high welded mesh fencing. The new school includes a range of enhanced and additional outdoor sports facilities. The existing playing fields will be retained and enhanced with additional tennis courts and additional grass sports pitches. A trim trail with exercise stations and orienteering posts will extend around the playing field area. A full list of the facilities is provided in the schedule below.

Games court (MUGA 4,525m²)

- 6 Netball Courts
- 6 Tennis Courts
- Five a side court

Pitches and summer sports

- 2 no Large Football Pitches
- 2 No Large Rugby Pitches
- 1 No Medium Rugby Pitch
- Rounder's Court
- 6 lane, 400 metre grass athletics track

Training grids

- 1 No Discus
- 1 No Shot Put
- 2 No Long Jump
- 2 No Triple jump
- 1 No High Jump

Building Design and Appearance

Typology

The Dearne ALC has been conceived around a typology engaging a central heart space into which the general and teaching accommodation are integrated. Working clockwise round the plan from the top left the accommodation includes a three storey administration block, the main entrance and welcome area to the ALC, the Adult Learning Centre, the large spaces including the lecture theatre, assembly hall and drama studio. The sports accommodation is to the east of the building relating directly to the adjacent leisure centre and the external sports fields.



To the south of the building the learning zones are split between two south facing courtyards. The central learning zone is a three storey general learning cluster. The learning zone to the west contains the technology, science, art and music spaces.

Aesthetic

The design solution creates a powerful and modern appearance to the building. The response to the educational learning environment has created a functional building with a strong modern professional appearance. The large flat roof has well defined eaves which brings together each element of the building as a whole. The creative modular cladding breaks up the homogenous façade, adding a colourful and dynamic finish to the building, which sits on a durable brick plinth. Full height glass curtain

walling punctuates the façade to the north and west entrances, and to the south from the courtyards. This allows natural light and ventilation to penetrate into the heart of the ALC, creating a vibrant and uplifting environment.



North Elevation

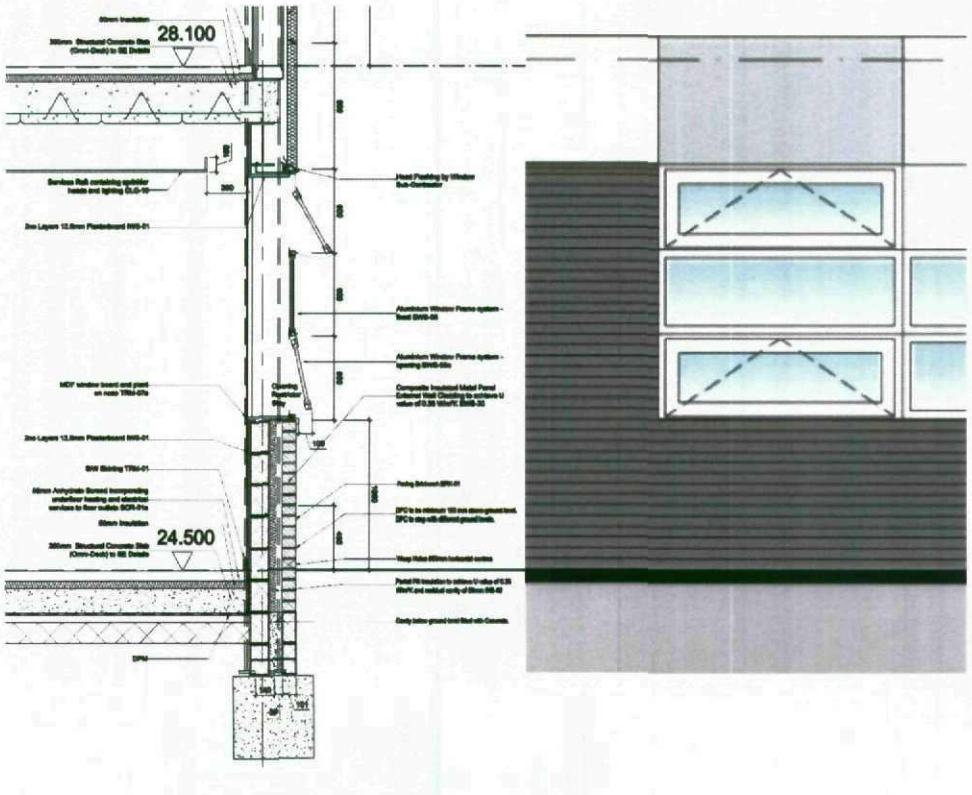


South Elevation

A simple palette of durable materials

The external palette of materials provides a strong modern appearance to the ALC. The materials will be durable and straightforward to maintain.

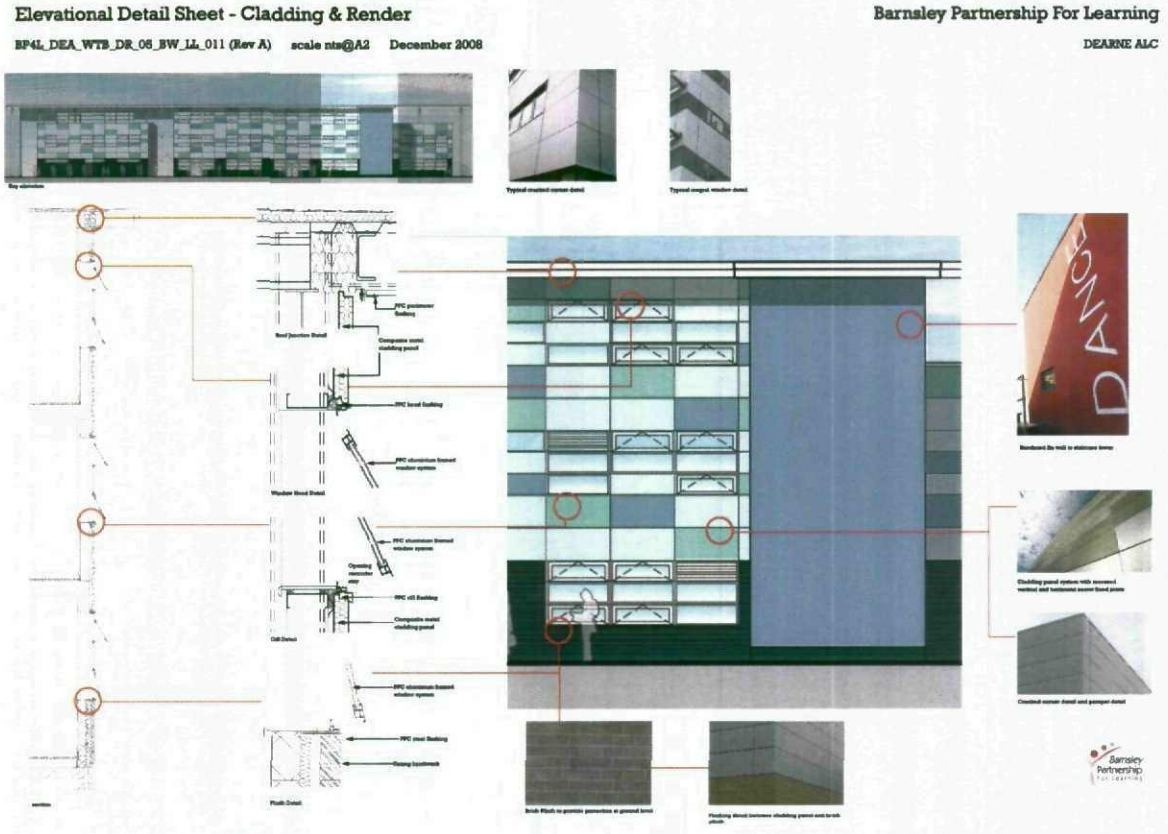
The building will sit on a plinth which will be applied to each façade. The blue / grey brick will vary from 1m above ground as a minimum up to 2.8m to the underside of the cladding. This will provide a durable base to the building and provide protection to the cladding above ground floor window height.



The composite cladding system will be the main element of the façade. The specification has called for the high quality secret fixed system with concealed flashings and gaskets. The modular approach breaks up the homogenous appearance of the façade and the introduction of a palette of colours with tie the building into the new ALC branding. The final colour selection and setting out of the panels is shown on the full scale drawings accompanying the application.

The fenestration has been designed to provide suitable levels of ventilation and natural light into the building. A day light report will accompany the submission of reserved matters following the completion of the façade calculations.

The window system is designed to integrate into the façade to create seamless detailing between the two products.



Coloured render panels help to further break up the building facades, mainly positioned to the ends of the escape stairs and will include graphics.

Strong Links to the Community

There is a momentum of opportunism in the Dearne Valley which is moving the community forward from the past. Developments along the Dearne Parkway and in Goldthorpe are physical signs of growth and achievement.

The new ALC will be another stride forwards for the rejuvenating locality. The physical presence of a new school building will in some way to promote regeneration. We are aware that we can create a distinctive and a building with a unique identity which will raise aspirations and inspire its users. However, the internal functionality should be a higher priority than the aesthetic. The architecture should not be a barrier to learning and should not be a barrier to engaging the local community. As such the design seeks to present a distinctive and professional businesslike appearance to the ALC but to also create internal spaces which are safe, welcoming and functional.

We believe the integration of design, engineering, functionality, display, and pervasive ICT throughout the building will create a straightforward facility which is accessible by students, parents and local residents. There is sufficient flexibility within the design of the spaces to allow a multitude of different activities. Our hope is that the building will mature and evolve over time and become a key asset within the heart of the community where learning is a lifelong aspiration, and pre-conceived ideas about how a 'school' should operate are changed.

Design Panel Comments

Throughout the bid process there have been a number of design panels which have made critical comment on the design development of the scheme. As part of the Preferred Bidder stage a number of technical issues have been raised as part of schedule 5.

<u>External colour selection and panel patterning</u>

The scheme design development has included a number of different permutations for the colour and patterning of the cladding system. The design intent is to create a professional business appearance for the building, while still maintaining an element of vibrance as an educational establishment.

The issue of colour has been discussed with the school and it has been agreed that the colours should reflect the school branding to create a more holistic approach to the learning environment. The current coloured elevations now reflect the family of colours the school wish to sue as part of this branding exercise.

The design panel were comfortable that there is a different approach between the north and south facades. The southern aspect is broken up by the glazed elements to the central heart space. The modulation of the cladding works against the back

drop of the courtyards. Introducing a more regular palette of colours here will address the concerns.

The north façade has been redesigned to reduce the amount of variety in the cladding modulation and colour. This has made the elevation more uniform and has now created a more professional business appearance.

Visual softening of the car park

The design panel have been concerned that the car park will dominate the main aspect of the ALC. Perspectives of the approach to the main entrance begin to define the screening of the car park. Through reviewing the perspectives, design development the soft landscape to the main entrance approach of the building has been further developed to include mounding between the car park and the footpath, together with trees and hedges to soften the visual impact of the car park.

The landscape design has also removed the mounding to the west side of the footpath to allow better access to the civic space in front of the entrance area. The line of trees, previously defining this route, have been relocated to create a stronger emphasis on the public open space.

Definition of entrance

The main entrance to the site is particularly well defined, and further detail is being progressed to look at materials to emphasise the pedestrian priority. From the entrance to the site a strong axial footpath link runs from Goldthorpe Road to the main entrance of the ALC. The wide footpath will be tree lined with seating and works of art to create a processional sequence to the entrance. It has been agreed that a defined light scheme will be produced to further emphasise the route.

The entrance to the building is seen as a slot in the north façade, set back from the main elevation. The entrance will be a three storey high glass curtain wall allowing views into and through the building into the south facing courtyards and toward the views beyond the ALC. This aspect of the façade will be a significant contrast to the brick and cladding either side. Furthermore, there will be light transferring through the central heart space from the southern aspect providing further contrast to the adjacent more solid elements.

The scheme includes for a 3m x 3m area on the main entrance glazing for a back projection screen. The screen will be visible from Goldthorpe Road and will provide the ALC with a 'shop window' to reach into the community, and provide an information service to the users of the building.

Interior treatment

This element of the technical issues does not directly affect planning, however is currently being progressed as the design develops.

Cladding mock up

A mock up of the cladding system will be developed as part of the material approval of the scheme.

Access Strategy

The design of Dearne ALC has considered the policy of full inclusion, making reference to the inclusion policy, part m of the building regulations, BS 8300, BB 98, the NRAC codes of practice and best practice from sport England guidance and the centre for accessible environments.

The building and external areas have been designed to be safe and accessible for all users and comply with current DDA and Building Regulations. This includes all entrances, footpaths, external sports facilities and hard and soft play areas.

Principal routes will be adequately illuminated with lighting columns and designed for maximum self surveillance. A strategy for external signage and way finding will be developed to ensure suitable circulation to and around the building and site. All routes will be of sufficient width to allow safe and controlled movement with appropriate hard surfacing and drainage.

Approach route and street furniture

The main entrance is 70m from the public highway along a flat, unobstructed and well lit pedestrian avenue. The surface material of concrete paving slabs is slip resistant, smooth and firm and seating has been provided on the approach to the main entrance. Any kerbs along the route are to be dropped and changes of level or direction highlighted with tactile paving.

Bus drop off

A bus drop off bay sufficient to accommodate five buses has been provided off the access road approximately 70m from the main entrance, accessed from along the main pedestrian avenue.

Car parking

A160 space car park has been provided in front of the school of which 8 spaces are designated as accessible places. These have been designed to BS8300 and include a 1200mm safety zone to the side and rear and have a dropped kerb onto a pedestrian route which leads directly to the principle entrance. A sign post stating 'setting down point' clearly identifies this area.

External ramps and steps

Due to the level nature of the site no external ramps or steps have been included in the design.

Entrances

The principle entrance will be clearly signposted from the outside incorporating the International Symbol of Access and be easily distinguishable by its design. A firm

flush entrance matt inside the entrance door will not provide a trip hazard. A level landing at least 1500 x 1500mm clear of any door swings has been provided immediately in front of the entrance in a material that will not impede the movement of wheelchairs.

Each set of external double entrance doors will have a minimum clear opening width of 1000mm for each leaf, be automatic and will open outwards and fail safe in the open position in the event of a power failure.

Manual controls for the powered doors will be located between 750mm and 1000mm above floor level, be operable with a closed fist and be set back 1400mm from the leading edge of the door when fully open and contrast visually with the background against which they are set.

Visual and audible warnings will be provided to warn people of their automatic operation when both opening and shutting. They incorporate a safety stop that is activated if the doors begin to close when a person is passing through.
The principle entrance doors will contrast visually with their surrounding frame. The glazing to the doors will be clearly defined with manifestation at two levels, 850 to 1000mm and 1400 to 1600mm above the floor.

There are 3 other entrances to the central area, each of which will have at least a set of double doors with a minimum clear opening width for each leaf of 1000mm, and a have flush threshold.

All four entrance points to the central area will have doors in a contrasting colour to the surrounding frames they are set within to aid the visually impaired.

All other external doors within the building will have a level threshold.

Reception Desks

Reception desks to both the main welcome area and the student services counter will make adequate provision at a lower level for wheelchair users.

Corridors

The principle circulation on level 00 is within the central area. This space is over 9m wide. A clear circulation width of 3m has been formed in front of the lockers and entrances to the main learning zones. A variety of different floor finishes, colours and textiles will provide visual contrast defining circulation within the central heart space.

The principle circulation on levels 01 and 02 in front of the lockers and entrance to the two main learning zones is also 3m. The remaining length of the balcony has a clear width of 2.5m and the short bridge links across the void have a width of 2.2m.

All main circulation routes within learning zones are at least 1800mm wide to allow two wheelchair users to pass. Where occupant numbers are limited and corridor lengths are short the corridor width is 1500mm which is still wide enough for a wheelchair user and a non wheelchair user to pass. This is on the premise that the

corridor opens out to 1800mm within a reasonable distance to allow two wheelchair users to pass.

Where the change in level occurs on level 02 approaching the Modern foreign languages learning bases, the stairs will be designed in accordance with the internal staircase description. The design solution includes for the provision of a wheelchair stair lift between the changes in levels. Where doors open into the corridor they have been recessed unless they are for minor utility facilities such a stores or plant room. Floor coverings will be well-fixed, non directional and junctions between surfaces will not create a tripping hazard.

At least one leaf in a double door across a corridor will achieve a minimum clear width of 850mm for wheelchair users to pass through. All doors in circulation routes will have vision panels.

Internal doors

Fire doors are held open by alarm linked devices in circulation routes which help overcome the maximum 30 N force required to open heavy fire doors. For all remaining doors the opening force at the leading edge will not exceed 20N. Door frames will visually contrast from the surrounding walls. Door furniture will be chosen to be easily gripped and contrast visually against the background. A visibility panel has been incorporated in all circulation doors and to the classrooms using the correct height visibility and safety glass throughout. All wheelchair accessible doors will comply with the 300mm leading edge rule.

Lifts

The building contains two fully AD M compliant passenger lift serving all three levels, with an unobstructed manoeuvring space 1500 x 1500mm wide in front at each landing level. The lift car has minimum internal dimensions of 1100mm wide x 1400mm deep with power operated horizontal sliding doors giving a minimum clear opening width of 800mm clearly distinguishable visually from any adjoining walls. Car controls are located preferably 1100mm from car floor level and 400mm from any return wall. The landing call buttons are located between 900 and 1100m above the landing level and 500mm from any return wall.

Toilet provision

A wheelchair accessible toilet has been included on the first floor adjacent the lift lobby. This will supplement the existing accessible toilets located in both the main school entrance area and the existing sports hall entrance area. As the door to this space is inward opening it will need a proprietary release mechanism for use in an emergency to allow the door to be opened outwards. This toilet will include a visual and audible fire alarm warning. Notices will be posted in the entrance lobby on each floor to notify users of its location on the first floor.
Disabled toilets are provided within 40m of the general accommodation in the building. In addition, one disabled toilet per floor will include a suite of personal care equipment including showers.

Internal staircases

All internal staircases are to ambulant disabled standards and each one is provided with a 1200mm unobstructed level landing at the top and bottom of each flight. It has flights whose surface width between strings or up stands is not less than 1200mm and there are no single steps. There are contrasting nosings 55mm wide on both the tread and the riser and the nosing do not project over the tread more than 25mm. The rise and going is consistent throughout each flight. The rise is between 150 and 170mm and the going is between 280mm. Each flight contains no more than 12 risers between landings.

The handrail will be continuous on each side of a flight and landing. The vertical height to the handrail from the pitch line of the surface of the ramp or steps will be between 900 and 1000mm, and from the surface of a landing is between 900 and 1100mm. The handrail will extend at least 300mm horizontally beyond the top and bottom of the ramp or nosing whilst not projecting into an access route. The handrail will contrast visually with the background against which it is seen without being highly reflective and its surface is not cold to the touch. Its will have a 45mm diameter profile which will project no more than 100mm into the surface width of the ramped or stepped access and there will be a clearance of between 60 and 65mm between the handrail and any adjacent wall surface.

Refuge points are provided to each stair case with intercom links at suitable height.

Wayfinding and signage

Wayfinding and signage will be part of the branding scheme for the ALC. The design will be careful to consider the visual ability of all the users of the building. To this end the final products will provide sufficient contrast, texture, appearance and where necessary audible information to ensure all users of the building are able to safely and comfortably orientate themselves around the ALC.

Lighting

The design of the ALC has been based around the principle of maximising the amount of day light, and where insufficiencies occur supplementing the natural light with adequate levels of artificial light.

The building will be appropriately lit to allow different levels of visual impairment to use all the facilities within the building.

Acoustics

The acoustic requirements for the ALC are governed by Part E of the building regulations and Building Bulletin 93. The guidance notes provide information relating to the reverberation and acoustic qualities of spaces and adjacent rooms.

The design solution for the ALC adheres to the principles laid out in the controlled documents which will create an acoustic learning environment suitable for all of the users in the building.