





*I am delighted to introduce **Designing for Sport on School Sites**, Sport England's latest guide in its series of Design Guidance Notes. It provides easy-to-use guidance and information to clients, architects, and schools advisors on how to put sport and physical activity at the heart of new and refurbished school developments.*

*Schools deserve access to high-quality facilities for PE and sport. At Sport England we believe that making these facilities accessible to the wider local community is vital if we are going to achieve our ambition of increasing and sustaining participation in sport across all age groups. I am confident that this informative guide will help promote the highest standards in design providing lasting benefits to educational establishments and the local communities which they serve.*

**Derek Mapp - Chair, Sport England**

Designing for Sport on School Sites provides practical well-considered advice when approaching the design of sporting facilities on education sites. Sport England considers this of particular importance at a time when capital investment in education is at record levels. The Building Schools for the Future programme coupled with a future primary school investment programme and the continuing large scale investment in the higher and further education sectors represents a fantastic opportunity to establish a new generation of sport facilities.

Building on the experience gained through investment on education sites over many years, Sport England believes the principle of dual use is key to unlocking the potential of school sports facilities. Dual use, delivering curricular opportunities and widening access to the local community, can help to place schools right at the centre of community life. High quality design will enable these facilities to flourish. This guide looks at the wider principles of designing for sport both indoors and outdoors. It seeks to promote quality provision for sport and physical activity in its widest context, from formal team games to new and different types of popular activities such as dance, adventure sports, and other fitness related activities.

This guide is not intended to cover all aspects of school sports facility design in detail. Instead it serves as an introduction to the key issues to be addressed throughout the design development process. It is aimed at clients as much as architects, recognising the key role that clients play in ensuring that good design decisions are underpinned by extensive strategic planning and a robust business plan.

Finally, by providing references and hyperlinks to more detailed design guidance provided by Sport England, the Department for Children Schools and Families, Partnerships for Schools, National Governing Bodies for Sport, and the wider sports industry, Designing for Sport on School Sites helps to bond together the wealth of useful information available to all involved in the development of successful school sports facilities.

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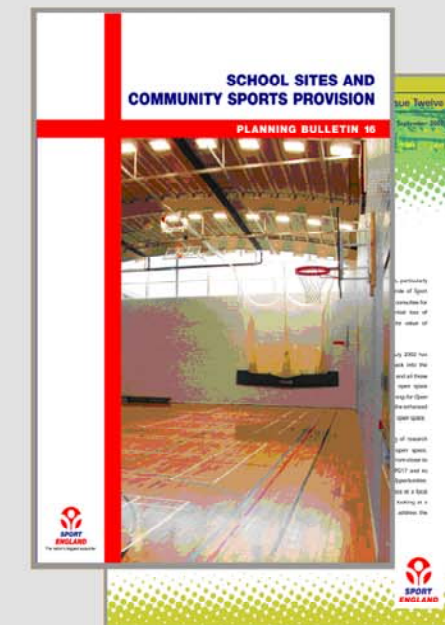
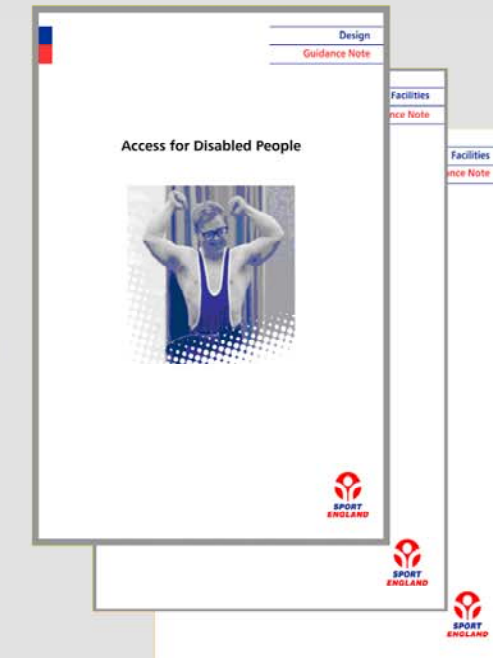
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**Examples of key guides produced by the Department for Children, Schools & Families.**  
(Formerly the Department for Education & Skills - DfES).

**Examples of key guides produced by Sport England.**  
(Refer to Appendix for a complete list of relevant information).

### DESIGNING FOR DUAL USE

#### 1. Strategic Planning

Before pen is put to paper on the design of school sports provision extensive strategic planning analysis should take place at Local Authority level to ensure the proposed facilities meet the needs of the school and wider community. Consider:

- Strategic mapping exercises to ascertain the proximity of existing and proposed sports facilities and travel times to facilities. This should include investigations both locally and within neighbouring communities.
- Creating a sporting vision for the Local Authority based on sound strategic consultation with key stakeholders.
- Identifying and consulting with locally run sports clubs and community groups.
- Preparing a gap analysis to establish market demands in the area of the new school.
- The planning context and the presumption against building on existing playing fields and sporting land.

There are a range of Sport England strategic planning tools to assist in this process of assessing need:

- **Active People** – A detailed survey of sports participation levels in England
- **Active Places** – A detailed database of existing sports facilities throughout England.
- **Active Places Power** – Analytical strategic planning tool based on above database.
- **Sports Facility Calculator** – Enabling projections of facility need based on population data.
- **Active Design** – Promoting sport and physical activity in the master-planning of new developments.
- **Sport England Planning Bulletin 16** – School Sites and Community Sports Provision.

[www.sportengland.org/downloads](http://www.sportengland.org/downloads)



Plan strategically for local sports provision.

#### 2. Management Approach

Designing sports facilities for dual use, open both to the school and the wider community, requires detailed consideration in terms of their management and operation. Consider:

- Using the **Delivery System for Sport**. Contact Sport England regional offices to be put in touch with your local County Sports Partnership, Community Sport Network and School Sports Co-ordinator network.
- Preparing a Business Plan for the school as a whole and the sports facilities specifically.
- Discussing the proposed facility mix with school users and community stakeholders.
- Preparing a Programme of Use and ascertaining the number of users and types and levels of activities.
- Creating a Sports Development Plan which incorporates aspirations for the centre and users.
- Conducting market research and testing.
- Ensuring management expertise and capacity. Manage in-house or out-source to leisure specialists.
- Revenue projections, operating costs, and 'sensitivity analysis' should real costs vary from projections.
- Facilities management issues such as marketing, maintenance and replacement costs, staffing numbers and expertise, cleaning, health and safety, insurance, security, child protection policies.
- Whole life costing, energy efficiency and adequate environmental systems.

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Discuss and agree a programme of use.

### 3. Site Planning

The position of sports buildings on a school site can have a significant effect upon usage, particularly out of hours community use. Consider:

- Where community buildings are placed on school sites; make them visible and easily accessible.
- Creating co-location of community services under one roof, for example dual use sports facilities combined with an arts centre, library, IT suite or café.
- The link to transport networks such as public transport routes, cycle routes, and footpaths. Develop a transport plan which encourages sustainable forms of transport.
- Complimenting this transport plan with adequate parking provision, mini-bus drop-off points, and secure cycle storage in consultation with the local planning authority.
- The orientation, form and construction of buildings and sports pitches to ensure the design minimises the environmental impact on the site and embraces sustainable design principles.
- Site constraints such as areas of flood risk, site topography, and tree preservation orders.
- Ensuring routes to the buildings and surrounding sports pitches are fully accessible.
- The approach to the building; ensure pathways are well lit at night creating a sense of safety and security.
- The buildings external appearance and massing in relation to materials, colours and texture.
- A clear building organisation with efficient circulation routes resulting in a minimal need for signage.

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Make community facilities visible and accessible.

### 4. Entrance and Reception

The importance of creating a good first impression for users upon entering buildings should not be underestimated in helping to develop community ownership and long-term usage. Consider:

- Location, approach and lighting. Make the entrance visible with a clear approach and location.
- Scale and ambience. Create a human scale entrance, which relates both to children and adults. The entrance should be light and airy and encourage members of the public to enter. Naturally lit and ventilated spaces create a spacious, airy ambience.
- The different user groups and the need for security in school hours. For example provide separate school and community entrances which can operate simultaneously throughout the year; or a well planned combined entrance serving the school by day and community at all other times.
- The controlled flow of participants and secure arrangements for booking, ticketing and the handling of cash.
- Locating the reception desk so that a teacher or receptionist has clear panoramic views and control. Provide a lower section that is accessible to wheelchairs and small children.
- Connecting spaces visually, for example inserting a glazed screen enabling views into the sports hall from the reception area.
- Clear and visible signage and information where necessary. Ensure a timetable of activities is on display and that consideration is given to the visually impaired.

[www.sportengland.org/downloads](http://www.sportengland.org/downloads)



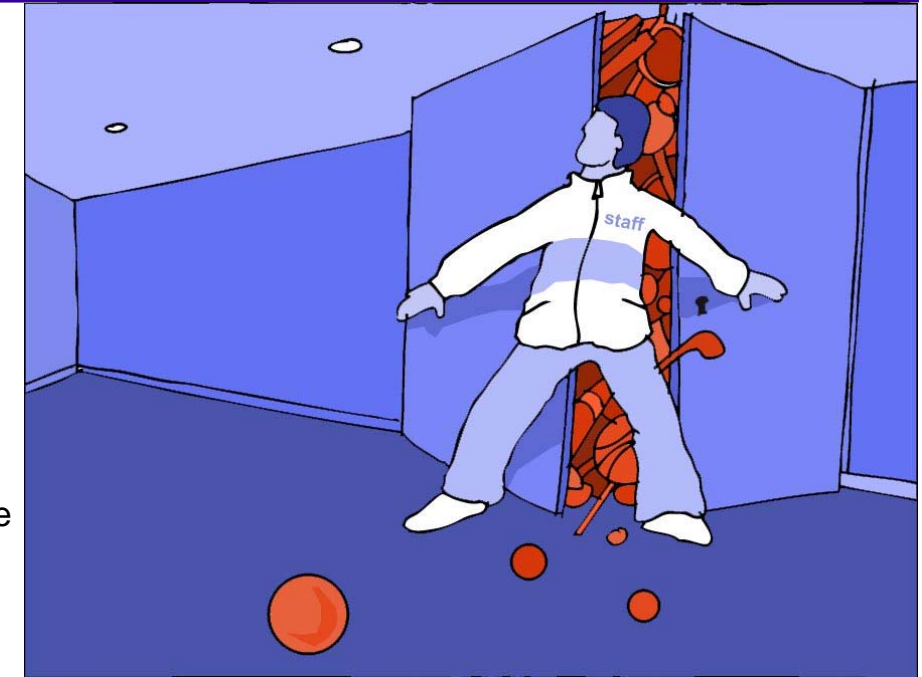
Create a welcoming, controlled entrance.

### 5. Flexible Shared Spaces

Combining school and community use creates opportunities for a diverse number of activities to take place. It is vital that the design allows for flexibility to ensure usage is maximised. Consider:

- The programming of spaces will need to cater for a mix of curricular and community activities. Design in flexibility, for example movable partitions and controllable lighting can sub-divide a single space allowing for a wider range of sporting activities to take place independently and simultaneously.
- Combining sport with the arts and other community activities. A studio space which can combine dance and exercise classes is just one example of this.
- Flexible spaces require adequate storage for a wide variety of fixtures, fittings and equipment. A lack of sufficient storage space is the most common fault in the design of dual use facilities.
- Dedicated sports facilities may from time to time be used for school examinations or community jumble sales, ensuring specialist sports flooring is protected on such occasions is imperative. School dining should not take place within specialist sport halls.
- Zoning. The building should separate school and community users where necessary for security reasons whilst looking to create zones where shared usage may align easily such as cafés and internet areas.
- Links to information technology. For example offices and teaching spaces dedicated to sports science.
- Providing spectator seating for school competitions and community events where appropriate.

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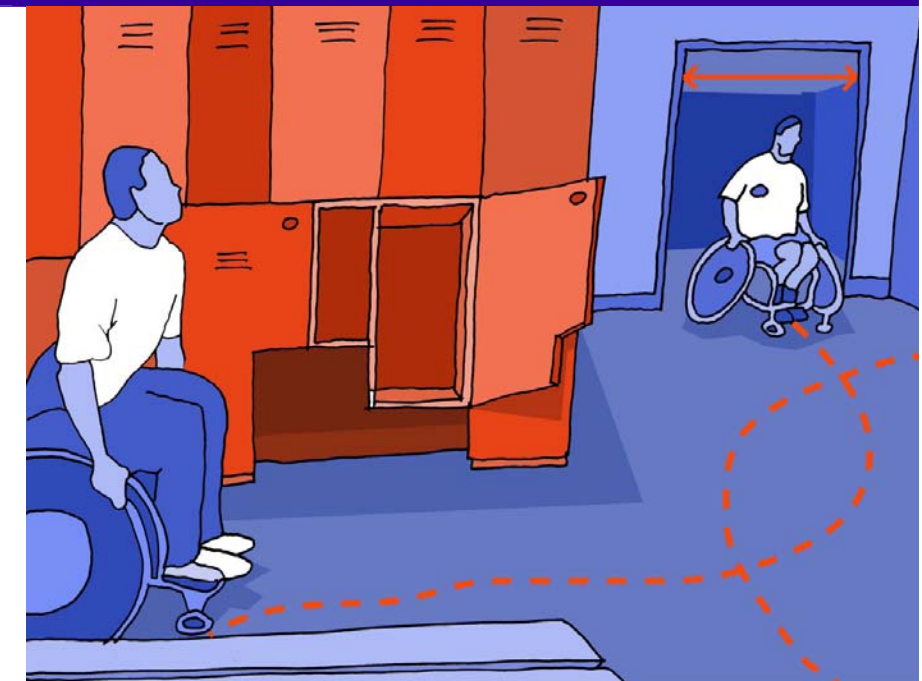
Plan for sufficient storage space.

### 6. Inclusive Design

Creating accessible facilities removes barriers and increases participation across all members of society. It should be remembered that inclusive design is most commonly associated with physical disabilities but extends to a wide range of topics including ethnicity, gender, and mental health. Consider:

- Designing facilities so that **all** areas are accessible and inclusive.
- BS 8300 and Building Regulation Part M are statutory *minimum* requirements. Sport England promotes inclusive provision beyond this minimum to reflect the specialist requirements of individual sports. For example specialist sports wheelchairs have wider wheel bases requiring wider door openings.
- Allowing for fully accessible changing rooms, usable by wheelchair sports teams, complimented by dedicated individual unisex accessible WC/changing provision.
- The Inclusive Fitness Initiative. This Sport England funded scheme works with the fitness industry to develop and promote inclusive fitness equipment.
- Conducting Access Audits at key stages in the design and construction.
- An inclusive approach that is inherent to the operation of the facilities. Ensure appropriate training for staff and marketing strategies which promote to local disability networks, clubs, and associations.
- Contacting the English Federation for Disability Sport (EFDS) to discuss the proposals.

[www.sportengland.org/downloads](http://www.sportengland.org/downloads)



Inclusive design for all.

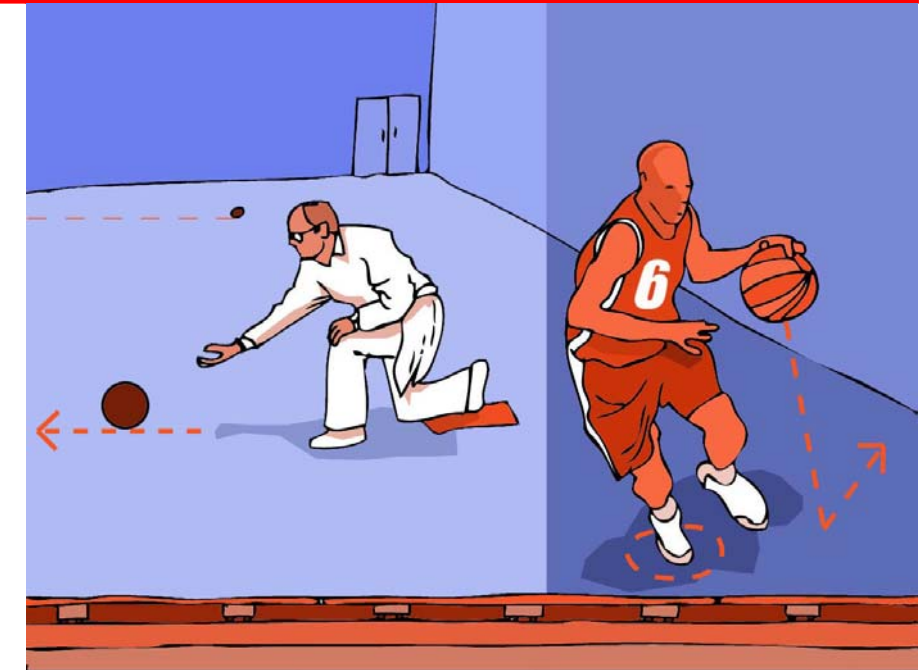
### INDOOR SCHOOL SPORT FACILITIES

#### 7. Sports Halls

Sports Halls provide the setting for a variety of sports and activities to be played. Consider:

- Flooring. The sports floor surface is probably the most important item of equipment in any sport facility. No one sports surface will suit all indoor sports so decide on your priority sports and play-test it first.
- Dimensions of the Hall. A typical Sports Hall is a 4-court badminton hall, 33 x 18 x 7.6m high (recreational use). 6, 9, or 12 court halls may also be considered depending on the priority sports and the level of play. For Primary Schools a 1 or 2 court hall may be more appropriate.
- Wall surfaces which are flush and impact resisting. Careful detailing should be paid to doors, skirtings, sockets and other potential obstructions. Avoid shelves or ball traps.
- Placing the structure and light fittings between badminton courts allowing for the height of a sports hall to be maintained efficiently whilst providing clear unobstructed heights over the courts.
- Lighting lux levels to suit priority sports and level of play. Colour contrast between floor, walls and ceiling aiding orientation with appropriate reflectance values (around 50% to floors and walls, 90% to ceiling). Where natural lighting is integrated, provide it at high level and avoid glare or unevenness of light.
- Planning the equipment requirements early. Consider against the range of sports planned for the facility.
- Allowing for storage space which is 12.5% minimum of the sports hall floor area. Locate storage on the long side of a hall wall with direct access and good proportions. Provide a separate fire rated mat store.

[www.sportengland.org/downloads](http://www.sportengland.org/downloads)



Ensure the correct sports flooring is specified.

#### 8. Dance / Exercise Studios

Dance and exercise studios are often flexible spaces reflecting the activities that they will house. Consider:

- Flooring. Remember dance / martial arts tend to take place in bare feet or thin soled shoes which take the full force of impact. An area elastic floor with shock absorption co-efficient of at least 55% is generally regarded as a minimum requirement.
- Dimensions of the Studio. A poorly proportioned studio will severely limit the range of activities that can take place. A space measuring 15 x 12m will cater for the majority of forms of recreational dance, exercise, and martial arts classes. Ensure an absolute minimum clear area of 10 x 10m to meet curricular needs.
- Clear height for dance. As a minimum an unobstructed height of 4.5m is required.
- Flush wall surfaces incorporating dance barres and a mirror along the whole length of one wall.
- The potential for subdivision using movable partitions to aid flexibility or personalised learning.
- Creating an enjoyable environment with consistent day lighting coupled with the ability to provide blackout and directional artificial lighting for performance. Consider an appropriate audio system and links to ICT.
- Studio spaces require a higher ambient temperature and higher number of air changes per hour when compared with a conventional sports hall.
- Storage. Compile an equipment schedule to ascertain specific requirements e.g. steps, spinning bikes, martial arts mats. The range of activities can have a large impact on the amount of space to be provided.

[www.sportengland.org/downloads](http://www.sportengland.org/downloads)



Plan for popular dance and exercise activities.

### 9. Fitness Suites

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Fitness suites are popular venues attracting wide usage across all age groups including those who tend to shy away from team sports and have a preference for personalised keep fit. Consider:

- An appropriately sized suite. Typically a dual-use school fitness suite may be 100-150m<sup>2</sup> in area, with 3.0-3.5m clear height, although the Business Plan may recommend a larger facility to meet local demand.
- A separate specific reception giving operational flexibility and staff control and supervision.
- An efficient layout incorporating warm-up/stretch area, fixed equipment/machines, and a free weights area.
- The number, range and type of fixed equipment. Ensure a mix of resistance and cardio vascular machines, consider equipment suitable for adults and children and keep an eye on market trends.
- Ensuring the Business Plan considers the pros and cons of the purchase or leasing of equipment.
- Equipment which meets Inclusive Fitness Initiative accreditation. Also consider the space requirements around machines. A general rule of thumb is to allow 5m<sup>2</sup> per equipment piece.
- Appropriate floor and wall construction and finishes. Consider floor loadings and ensure attractive, hard-wearing finishes with wall surfaces that can support equipment, TV's, and storage racks as required.
- Appropriate services provision, for example, design electrical /audio cable routes at an early stage to avoid raised podium areas and to provide links to ICT. Remember fitness suites require high ventilation rates.
- Other ancillary spaces such as the potential for a fitness assessment room or dedicated offices.



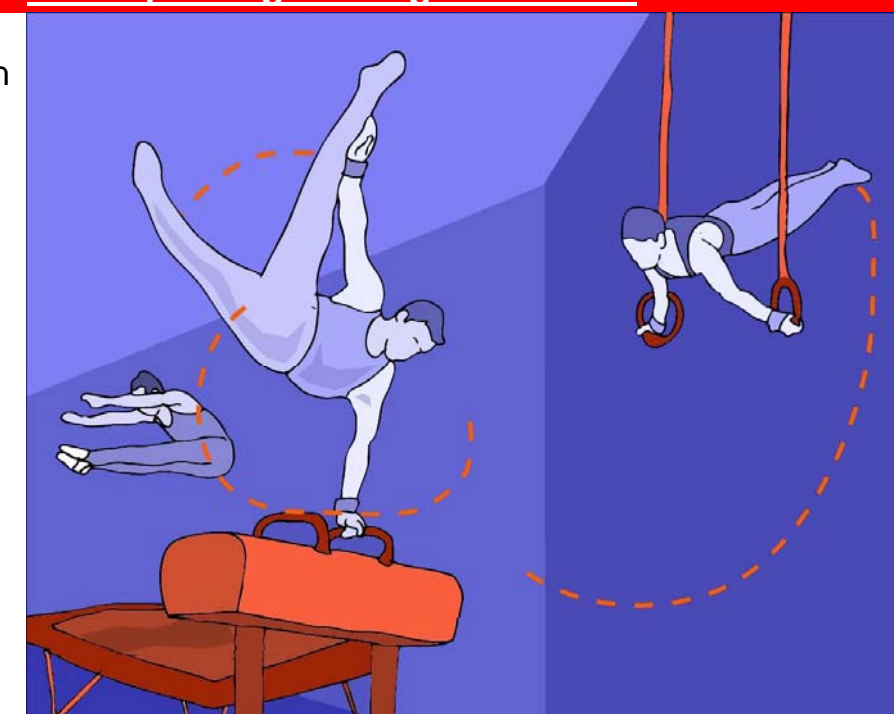
Allow for personalised learning and keep fit.

### 10. Supplementary Indoor Spaces

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There are a number of specialist and supplementary indoor spaces that can complement the basic school sports provision providing a richer mix of facilities for the school and local community. Consider:

- Swimming provision. Swimming is part of the National Curriculum and is one of the nation's most popular participatory sports. Consideration needs to be given as to whether demand is catered for on the school site or is linked to wider local authority swimming facilities.
- A dual use swimming pool on a school site would tend to be 25m in length and 6 or 8 lanes in width with separate dedicated changing. Consider a movable floor and bulkhead to increase programming flexibility.
- Pools require complex services and high ongoing operational costs. Plan for long term sustainability.
- Early strategic planning and consultation which may lead to a school site developing a sport specific specialism, perhaps co-locating a National Governing Body for Sport (NGB) Regional Performance Centre on site.
- Examples include a dedicated Indoor Tennis Centre; a Gymnastics Centre incorporating sunken pits, height for trampolining, and specialist equipment; or an Indoor Athletics Centre incorporating a jumps area, throws area and dedicated running straight. Such facilities require early planning and partnership funding.
- Non-traditional and fast growing sports such as climbing. A dedicated indoor climbing wall could be incorporated in preference to climbing walls within sports halls which can present a hazard unless carefully designed.
- Linking sports facilities to wider dual use facilities such as an arts theatre, library, or crèche.



Consult with National Governing Bodies of Sport

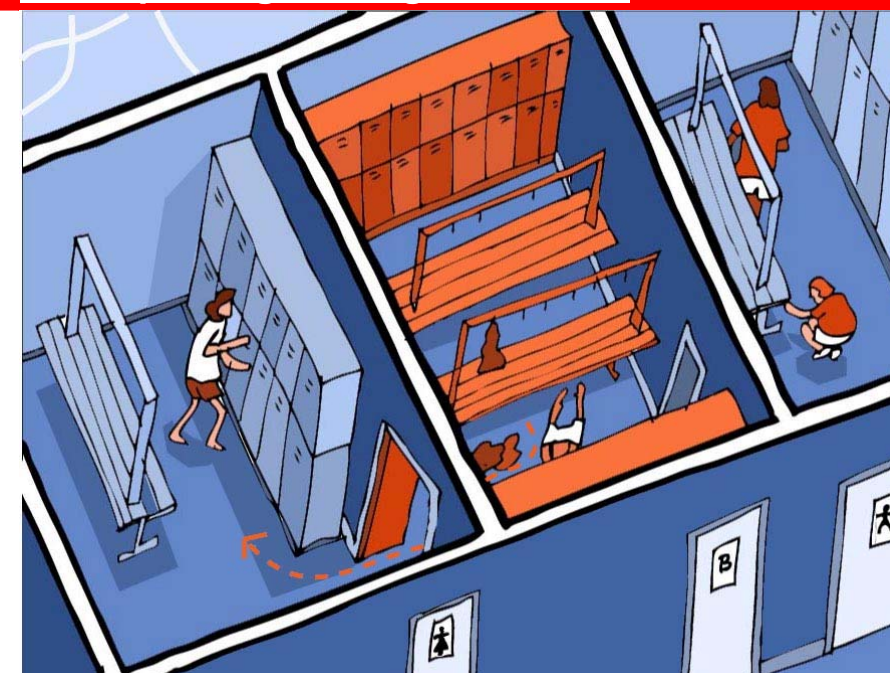


### 11. Indoor Changing Provision

[www.sportengland.org/downloads](http://www.sportengland.org/downloads)

Well-designed and appropriate changing facilities are as important as the activity spaces themselves. Consider:

- Calculating the space required for changing from class sizes and the maximum occupancy levels of the activity areas they support, including changeovers. Generally allow for at least 1.0m<sup>2</sup> per person as a rule of thumb.
- Providing for equal proportions of male and female changing and consider buffer changing zones between the two genders allowing for the flexibility to accommodate different ratios of male or female numbers.
- Providing separate dedicated changing facilities for use by PE teachers, coaches or officials.
- Fully accessible rooms. Consider door widths, turning circles and avoid raised thresholds to shower areas.
- Providing a proportion of enclosed cubicles to showers and changing spaces as privacy may be required by members of the public and certain ethnic user groups.
- The standard of changing rooms often attracts criticism. Ensure high quality, robust materials are specified to meet customer's expectations and ensure a long lifespan. Consider high level natural lighting and avoid suspended ceilings as these can be easily damaged. Include for grooming stations with mirror, shelf and hair-drying facilities.
- Calculating bench space, shower, toilet, and locker provision as a ratio of the capacity. For example, provide 0.5m of bench width per user, 1 shower for every 6 users, and a range of locker types and sizes.
- Locating lockers in communal corridor areas for passive security. Consider a range of shapes and sizes, an appropriate locking mechanism, and include a proportion of accessible lockers.



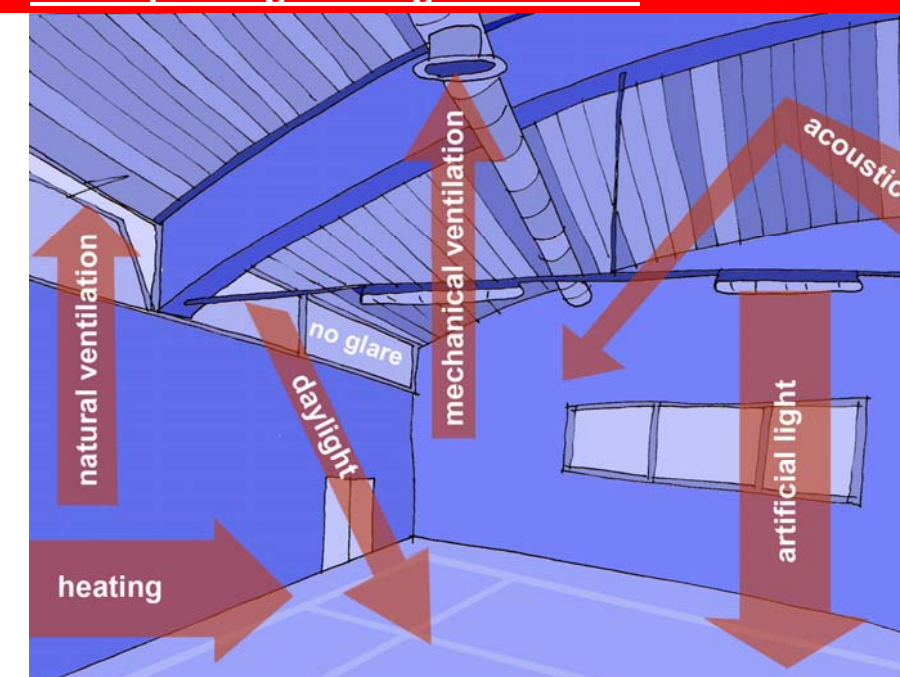
Design appropriately sized flexible changing areas.

### 12. Building Services Provision

[www.sportengland.org/downloads](http://www.sportengland.org/downloads)

Sports facilities can be energy intensive; building services require careful design and management. Consider:

- Environmental and economic sustainability. Ensure integrated energy efficient services which seek to minimise environmental impact and reduce long-term operating costs. Consider renewable energy options.
- Energy saving systems incorporating intelligent controls for effective and efficient operational management particularly for out of school hours. Consider zoning of services.
- Obtaining specialist advice from a qualified building services consultant. For high performance facilities consultation with the relevant NGB is recommended to ascertain any specific services requirements.
- Heating systems. Ensure appropriate ambient temperatures to each space and consider the pros and cons of the costs, control, and maintenance of different systems e.g. radiant, warm air, underfloor heating.
- Ventilation systems. Ensure appropriate systems to deliver required number of air changes to each space.
- Lighting requirements. Specify correct lighting levels for player visibility and safety. Ensure lux levels are appropriate to the range of sports to be played (e.g. indoor cricket requires considerably increased lux levels). Consider lamp types, switching gear and an appropriate access and maintenance regime.
- Acoustics requirements. Large sporting spaces with hard surfaces can be challenging environments for teaching and coaching. Ensure appropriate acoustic treatment is considered.
- Integrated power supplies. For example, equipment and sound systems linked to the schools ICT system.



Plan efficient sustainable and appropriate services.

### OUTDOOR SCHOOL SPORT FACILITIES

#### 13. Natural Turf Pitches

Despite initial appearances, natural turf pitches require detailed specification and careful maintenance. Consider:

- Seeking expert specialist advice from experienced, qualified and independent professionals.
- Undertaking a detailed site survey. Key considerations include local topography, ground conditions and possible utilization of existing watercourses.
- Size and layout of pitches taking into account the level of play, necessary safety margins and optimal orientation. Check all dimensions with relevant NGB requirements for school and community play.
- The need for level and well-drained pitches is paramount. Generally the playing surface should be no steeper than 1:80-100 along the line of play and 1:40-50 across the line of play.
- The pitch construction and appropriate drainage system. Consider the permeability of the soil and the requirements for pipe and silt drainage. Generally, ensure a minimum 'firmed' depth of 150mm of topsoil.
- The frequency and intensity of use. Consider a hard-wearing seed mixture for pitches with winter use (e.g. perennial ryegrass). Avoid the non-sporting use of pitches (e.g. as overflow car parking).
- Ensuring a fully specified maintenance schedule is produced and acted upon. For example consider the frequency of pitch mowing, aeration, irrigation, seeding, use of fertiliser, and weed/pest control.
- Equipment (maintenance machinery and sports equipment) coupled with adequate storage provision.
- For cricket squares refer to specialist advice available from the English Cricket Board (ECB).

[www.sportengland.org/downloads](http://www.sportengland.org/downloads)



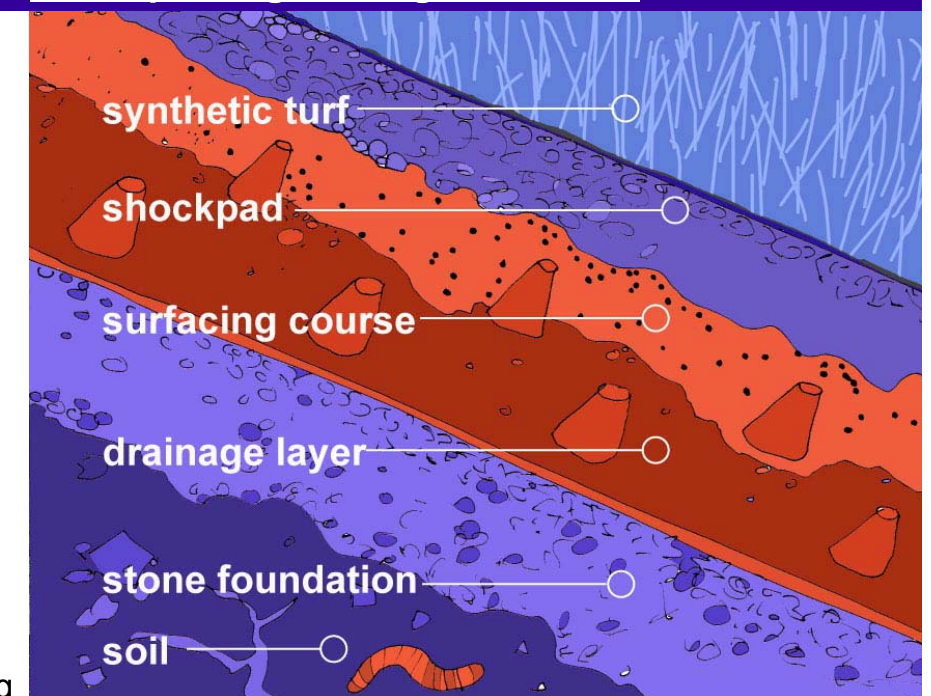
Avoid poorly drained pitches. Seek expert advice.

#### 14. Synthetic Turf Pitches (STPs)

Synthetic Turf Pitches (STPs) can withstand a high intensity of school and community use. Consider:

- The STP size and layout taking into account the level of play and necessary safety margins. Check all dimensions with relevant NGB requirements. Take the playing surface right up to the fence line.
- The choice of surface that suits the priority sports to be played, the intensity of use and intended lifespan. Generally surfaces consist of a synthetic yarn supported by a filling material (e.g. sand, rubber crumb etc). There are many surface options with each containing variables (e.g. pile height and density, choice of shockpad, construction materials, and drainage system). Seek expert specialist advice from experienced, qualified professionals and test the STP performance characteristics using standardised testing methods.
- Undertaking a detailed site survey and ground investigations. STP costs are greatly influenced by site conditions (e.g. existing topography, access, and drainage). Avoid nearby tree roots / branches.
- Maintenance. For a long-lasting, consistent sports surface this is of paramount importance. Follow contractor's maintenance instructions and plan for the cost of the eventual replacement of the surface.
- Fully accessibility; with well-lit, paved access to outward opening gates contained within the fencing line.
- Floodlighting to enable maximum out-of-hours use of school STP facilities.
- Division netting to sub-divide full sized STPs giving operational flexibility. Ensure safe anchorage of all freestanding equipment (e.g. posts and goals) and provide adequate external equipment storage.

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Specify the appropriate pitch size and surface.

### 15. Multi-Use Games Areas (MUGAs)

Multi-Use Games Areas (MUGAs) are popular external spaces encompassing a range of surfaces. Consider:

- A Multi-Use Games Area (MUGA) is a generic term to cover a range of 'ball courts' in a variety of surfaces and sizes. Develop a programme of use for the MUGA and agree the priority sports and level of play to ensure an appropriate size and performance specification is developed.
- Ensuring basic court sizes and minimum safety margins are achieved, particularly for key sports such as tennis, netball and basketball where court dimensions are fixed.
- The choice of surface. Porous macadam is a popular durable surface which allows year round usage, whilst polymeric surfaces have a greater degree of inherent shock absorption more suitable to certain sports. Seek expert specialist advice and test the MUGA performance characteristics using standardised testing methods achieving minimum standards for surface evenness and flatness.
- Undertaking detailed site investigations at the initial stage and implementing a long-term maintenance plan.
- Court markings. Generally white markings are used for the most popular sport then, yellow, blue and red.
- Fully accessibility; with well-lit, paved access. Consider design of gates, fencing, and provision of rebound walls / recessed goal areas. Ensure safe anchorage of equipment alongside adequate storage areas.
- Site location to limit potential noise transfer to adjoining properties and plan for floodlighting to enable maximum out-of-hours use of facilities (relevant to both MUGAs and STP's).

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Consider fencing, rebound walls and court markings.

### 16. Supplementary Outdoor Spaces

There are a number of supplementary outdoor spaces that can complement the basic school sports provision providing a richer mix of facilities for the school and local community. Think creatively and consider:

- The creative use of playgrounds which maximise the available space for outdoor physical activity and education. Provide a mix of formal and informal play spaces which seek to encourage games and sport. Use markings and colour to zone areas.
- Integrating physical activity opportunities within the external landscape design of the school site. For example consider providing trim trails, nature paths and small scale orienteering routes.
- Integrating cycle pathways and tracks within circulation routes, potentially linking to the wider network of local and national cycle schemes. Provide sufficient covered and secure cycle storage points.
- Developing a sport specific outdoor specialism on the school site. For example athletics track and field facilities which could be shared with a local club and a local network of coaches and volunteers.
- Non-traditional, informal approaches to outdoor sport and physical activity. Consider practice sports walls or relocatable equipment such as climbing walls and skateboard ramps.
- Linking sports facilities to wider off-site provision such as specialist outdoor activity centres.
- Fully accessible routes around the school site coupled with sufficient lighting to provide a safe and stimulating external environment.

[www.sportengland.org/downloads](http://www.sportengland.org/downloads)



Create stimulating outdoor environments.

### 17. Outdoor Changing Provision

It is essential that outdoor changing provision is provided to support community and school play. Consider:

- Planning for separate changing facilities to serve external grass pitches. In most circumstances it is not considered appropriate or practical to combine changing for indoor and outdoor sports.
- Calculating the space required for changing from the number of pitches, changeovers, and intensity of use. Remember possible sub-division to pitches and that STPs / MUGAs sustain high intensity usage.
- Providing 'team' changing rooms which cater for players, substitutes and equipment. Different sports will have different space requirements e.g. 16m<sup>2</sup> for football, cricket and hockey, 20m<sup>2</sup> for rugby.
- Providing separate dedicated changing facilities for use by PE teachers, referees and officials.
- Locating outdoor changing facilities within separate accommodation close to the external pitches. An office, storage and possible clubroom could be included to create a 'pavilion' building which can operate independently of the main school buildings at evenings and weekends.
- Allowing 1 shower for every 4 changing spaces and locate showers and drying areas as far as possible from changing entrances to avoid mud transfer.
- Management of the changing rooms. Consider whether toilets and lockers are contained within the changing rooms or provided in separate communal areas to maximise flexibility. Ensure high quality, robust materials. Outdoor facilities are particularly vulnerable to vandalism.

[www.sportengland.org/downloads](http://www.sportengland.org/downloads)



Provide dedicated changing to outdoor facilities.

### 18. Floodlighting

Floodlighting allows for extended use and aids the economic sustainability of external pitches. Consider:

- An analysis of the need for floodlighting. Assess the potential benefits (e.g. longer operating hours, increased use, greater programming flexibility and additional income) against the costs (e.g. initial capital costs, ongoing energy costs, maintenance and management costs).
- Floodlighting will require planning permission; conduct early discussions with local planning authorities.
- Site context and location. Consider effect on the local environment including the proximity to housing. Careful design can limit light spill (e.g. use of baffles) and ambient noise levels (e.g. earth mounding).
- Lighting needs vary for different sports and for different levels of play. The higher the standard of play the higher the lighting class. Each sport categorises required illuminance levels by three lighting classes: Class I (International / National level); Class II (Regional / County); Class III (Local Club / Recreation).
- Many variables determine cost and performance (e.g. the illuminance value, suitable contrast and colour rendering, satisfactory glare control, the energy efficiency of the lamp type, location of incoming electrical supplies). Seek expert advice from experienced, independent professionals.
- The number, height and position of floodlighting columns to ensure a uniform light distribution across the playing area. Columns should be placed outside the fencing line or minimum pitch safety run-off.
- The need for regular cleaning and maintenance of lamps including provision for lamp replacement costs.

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Plan for floodlit extended playing hours.

### Selected Department for Children Schools & Families (DCSF) & Partnerships for Schools (PfS) Guidance

DCSF/PfS Guidance related to school sport  
Building Bulletins 98 & 99  
Inspirational Spaces for PE and Sport

Further non-sport specific design guidance for schools:

Department for Children, Schools & Families  
Partnerships for Schools  
Commission for Architecture & the Built Environment  
BSF-Culture

### Sport England Design Guidance Notes (DGN)

Sport England's Database of Design Information

#### 1.0: Strategic Planning

Active People      Active Places  
Planning Bulletins      Sports Facility Calculator  
Active Design

#### 2.0: Management Approach

Delivery System for Sport  
The Win Win Scenario (to be published)

#### 3.0: Site Planning

Active Design  
Better Places for Sport DGN  
Car Park and Landscape Design DGN

#### 4.0: Entrance and Reception

#### 5.0: Flexible Shared Spaces

Sports Halls - Design DGN  
Village & Community Halls DGN

#### 6.0: Inclusive Design

Access for Disabled People DGN  
IFI Website  
EFDS Website

#### 7.0: Sports Halls

Sports Halls - Design DGN  
Sports Halls - Sizes and Layouts DGN  
Floors for Indoor Sports DGN

#### 8.0: Dance / Exercise Studio's

Sports Halls - Design DGN  
Studio Spaces and Fitness Suites DGN (to be published)  
Also refer to NGB database

#### 9.0: Fitness Suites

Sports Halls - Design DGN  
Studio Spaces and Fitness Suites DGN (to be published)  
IFI Website

#### 10.0: Supplementary Indoor Spaces

Swimming Pools DGN (to be published)  
Athletics DGN  
Also refer to NGB database

#### 11.0: Indoor changing provision

Sports Halls - Design DGN  
Changing rooms and lockers DGN  
Access for Disabled People DGN

#### 12.0: Building Services Provision

Environmental Sustainability DGN (to be published)  
CIBSE Lighting Guide 4: Sports Lighting (hard copy only)

#### 13.0: Natural Turf Pitches

Natural Turf for Sport DGN  
Comparative Sizes DGN  
Institute of Groundsmanship  
Also refer to NGB database

#### 14.0: Synthetic Turf Pitches (STPs)

#### 15.0: Multi-Use Games Areas (MUGAs)

A Guide to the Design, Specification and Construction of MUGA's including STP's DGN in 3 Parts:

Part 1  
Part 2  
Part 3  
Comparative Sizes DGN  
SAPCA Website  
Also refer to NGB database

#### 16.0: Supplementary Outdoor Spaces

Athletics DGN  
Active Design  
Cycling DGN  
Also refer to NGB database

#### 17.0: Outdoor Changing Rooms

Clubhouses and pavilions DGN  
Changing rooms and lockers DGN

#### 18.0: Floodlighting

CIBSE Lighting Guide 4: Sports Lighting (hard copy only)

#### National Governing Bodies of Sport Guidance

Refer to database of sport specific information on:  
Sport England's Database of Design Information  
(Excel spreadsheet links to NGB technical information).



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