



Pavilions and Clubhouses



Introduction

This Guidance Note concentrates on pavilions that are free-standing and designed primarily for cricket, football, hockey and rugby. The recommendations also apply to pavilions for sports such as bowls, tennis and athletics, and to outdoor changing facilities that form part of a sports centre. The standards outlined can also be applied to the upgrading of existing accommodation.

Buildings of this type require considerable skill in their design and specification if they are to be successful. Skilful planning can eliminate unnecessary circulation space and increase the flexibility of the primary spaces. Attention to detail in design and specification can increase user satisfaction as well as simplifying cleaning and reducing maintenance.

It is far better to design a smaller building of the right quality, with room for later extension, than a larger building of poor initial quality.

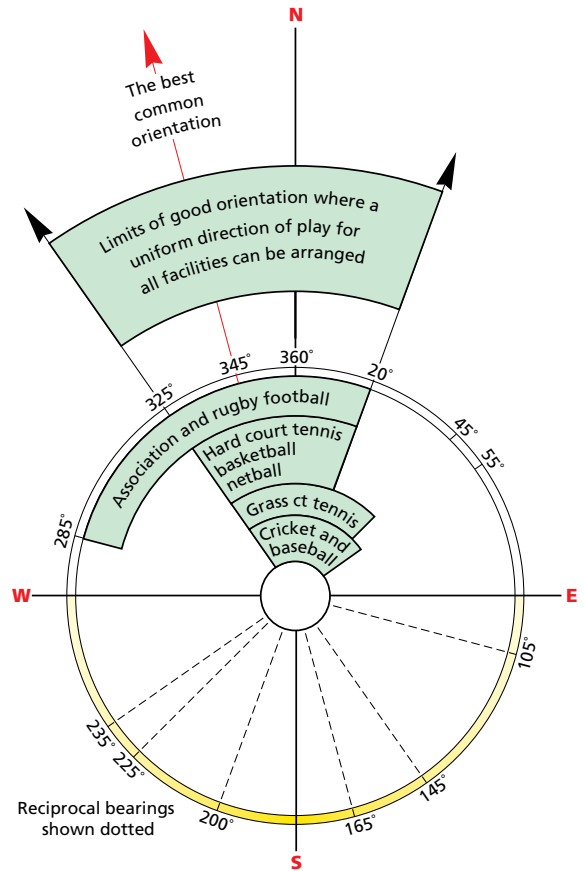
Site planning

Location

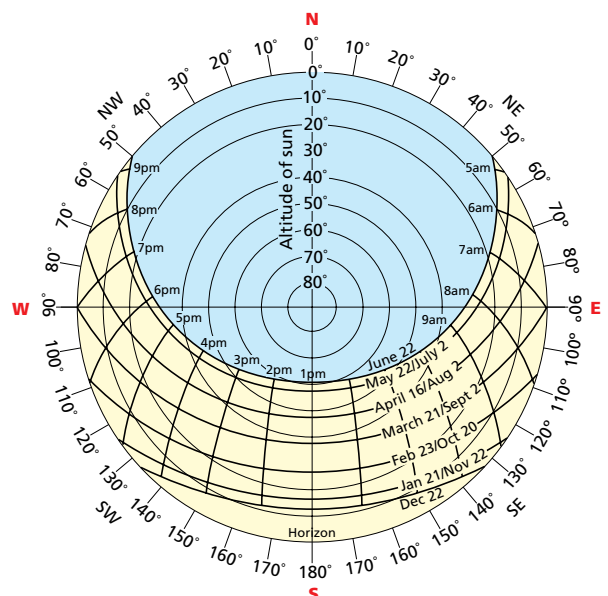
The shape and contours of the available site will obviously influence the location of a pavilion. However, in most instances, the proximity of an existing access road and/or the necessary main services, will be of prime importance if unnecessary and expensive site development costs are to be avoided.

It is essential that the site should provide:

- sufficient space for the proposed pavilion as well as space for future expansion
- adequate car parking provision, including the potential for overspill parking
- access for service and emergency vehicles
- a reasonable relationship with the sports spaces it will serve.



Goal to goal, wicket to wicket, or baseline to baseline orientation diagram. From the National Playing Fields Association's original.



It is important to consider orientation and sun angles when designing club room viewing. This example of a sun path diagram is for a latitude of 52°N.



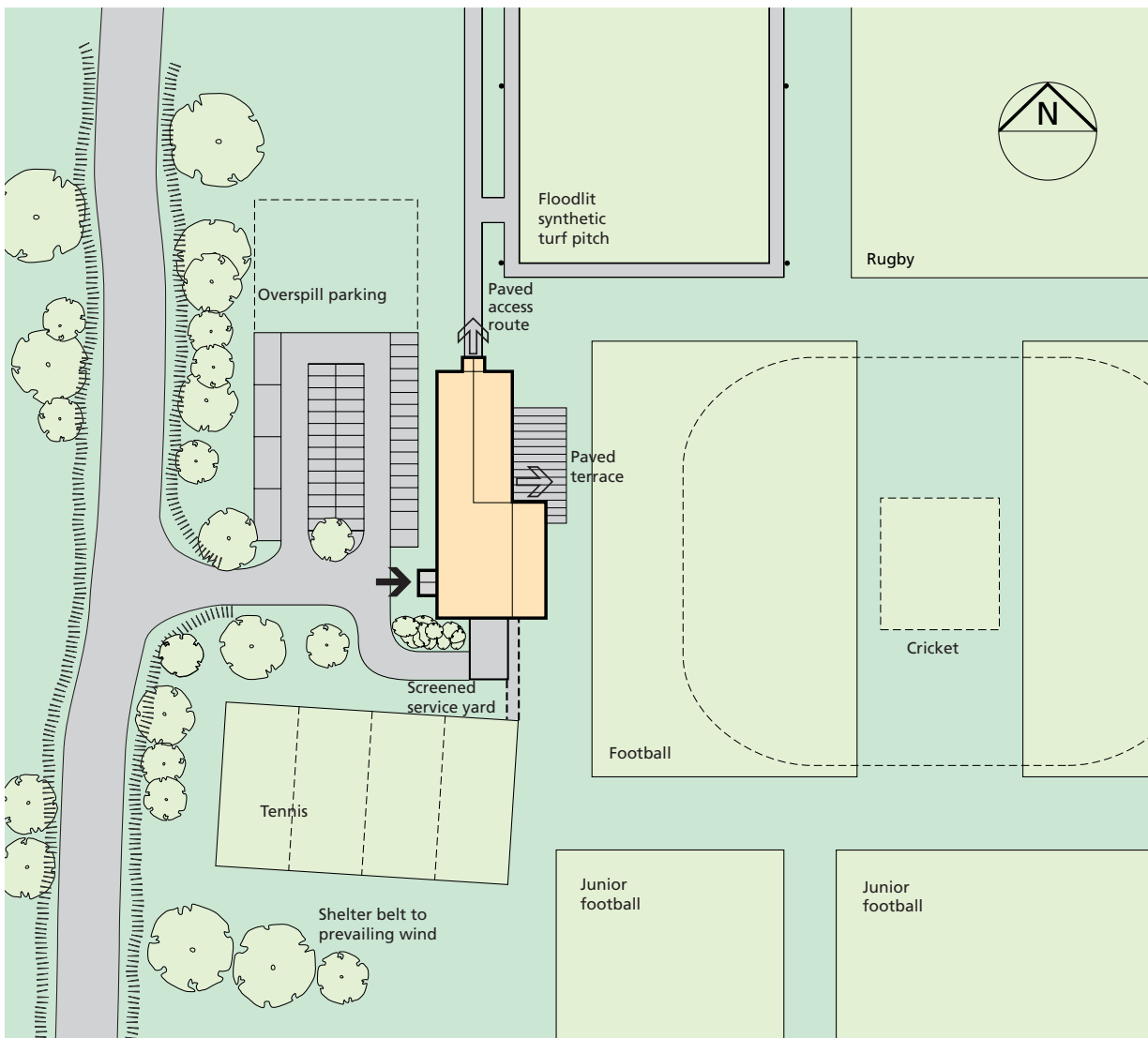
Orientation

Ideally any entrances to the pavilion should be oriented away from the direction of the prevailing wind. However, to permit comfortable viewing of the cricket square and/or principal pitch from the pavilion, the building should not face the setting sun.

Club room glazing provided for viewing pitches or a cricket square must be carefully specified and detailed to combat glare; roof overhangs or screening may be required. Consider carefully the use of safety glazing.



A sailing clubhouse where the scale has been reduced by utilising the roof space for some social and office accommodation and by treating the cladding and joinery in a stain of uniform colour.



Pavilion orientation and relationship to playing areas. Club rooms should view east for most team games and tennis. South-east is preferred for cricket.

Accommodation

The scale and type of the changing accommodation depends upon the number and type of pitches served, as well as the different sports that will use the pavilion.

The general accommodation should include:

- changing rooms
- showers and dry-off areas
- toilets
- separate officials' accommodation
- meeting/social area
- cleaner's cupboard or store
- entrance lobby
- electrical meter/intake cupboard
- disabled toilets/changing.

The accommodation may be expanded to include:

- club/committee room
- kitchen
- office
- weights or fitness equipment room
- exercise studio
- physio treatment and first aid room
- bar and lounge
- dining area
- other social and sports accommodation
- cricket score box
- grounds maintenance store
- boiler or plant room
- caretaker's flat.

Provision of these additional sports and social elements should depend upon their potential to attract increased use of the facility.



Old and new. Cricket pavilions displaying typical design characteristics of their respective eras.

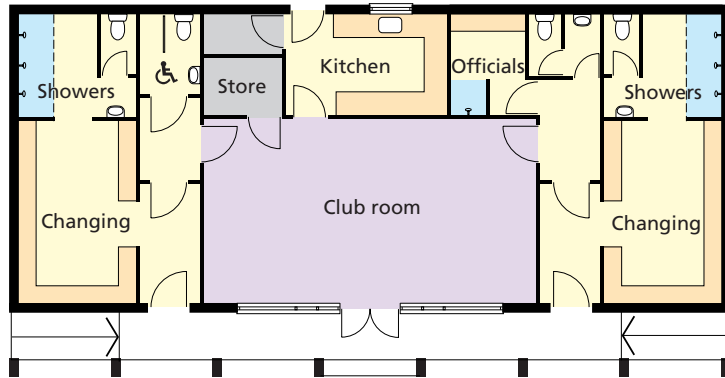
Pavilion planning

Careful planning of the accommodation is essential to ensure a successful scheme and special consideration should be given to the following points:

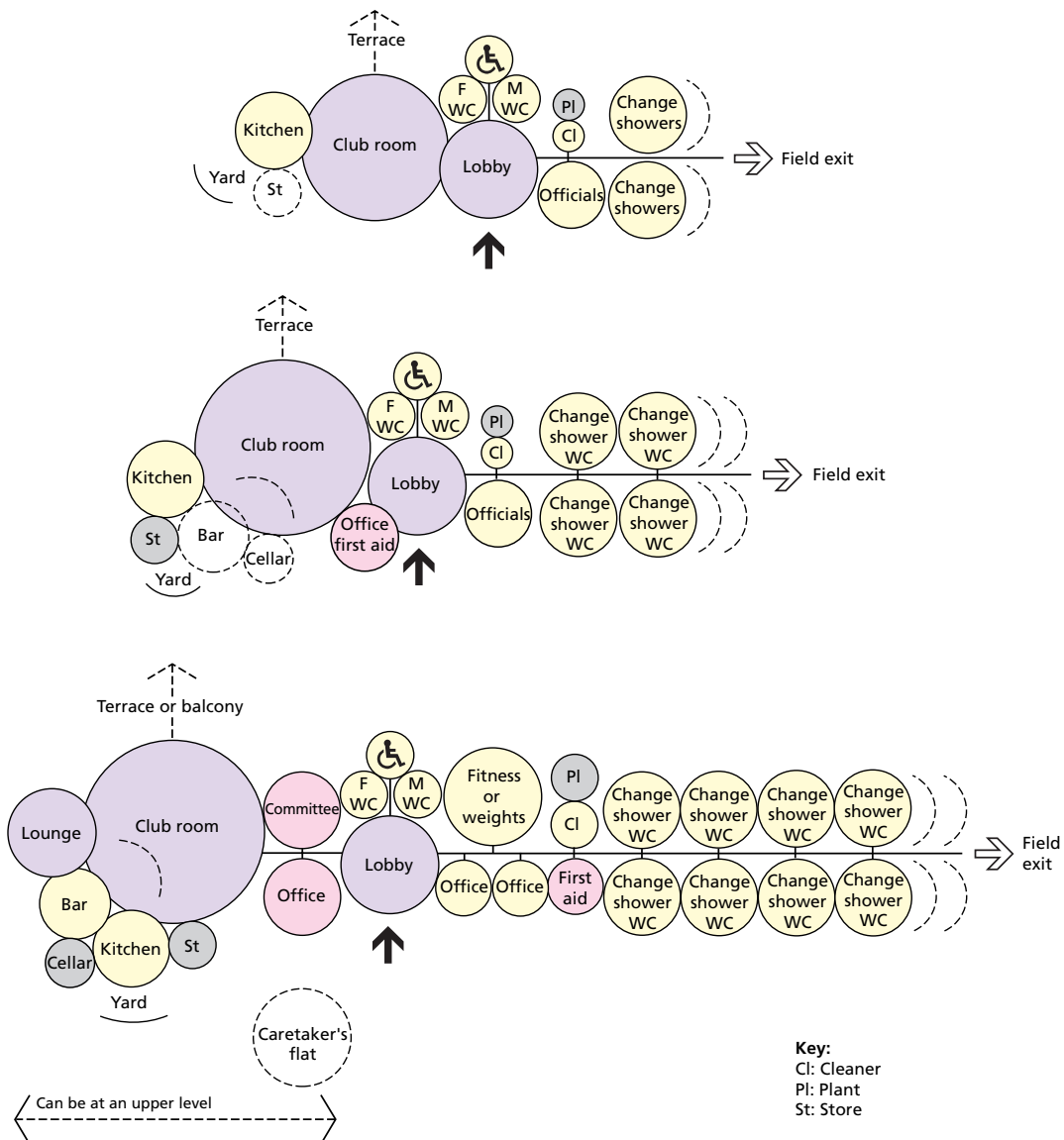
- Include an entrance lobby for even the smallest pavilion; never enter directly into a corridor.
- Separation of changing and wet and muddy areas from any social or indoor sports accommodation.
- Provide planning flexibility to respond to different levels of male/female use.
- Plan for simple, straightforward circulation routes.
- Corridors should be at least 1.5m wide except in the smallest two-changing unit pavilion. Where lockers line one wall of a spine corridor, 2.7m is required between wall faces.
- Ensure access for disabled users; include a lift to upper-level social or club accommodation. This subject is covered in detail in a separate Guidance Note.
- Plan for convenient access to pitches and satisfactory viewing of the principal playing areas.
- Never plan grass pitch changing rooms with stair access at first floor level.



An urban bowls pavilion tucked into a narrow site. An eaves overhang provides some shelter along the green's frontage.



A traditional pavilion plan with entry direct to the club room. This concept remains suitable for the summer sports – cricket, tennis and bowls, but bowls pavilions do not require showers.



Diagrams showing the spatial relationships in small, medium and large pavilions.

Changing rooms

Changing facilities can be provided either as individual team changing rooms, large communal changing areas or a combination of both, where it is necessary to have flexibility of provision.

Individual team changing rooms are preferred. They provide for pre-match talks and deter disagreements on the field from continuing after a match. Some multi-pitch locations, for example on higher and further education sites, can justify the more economical communal changing approach.

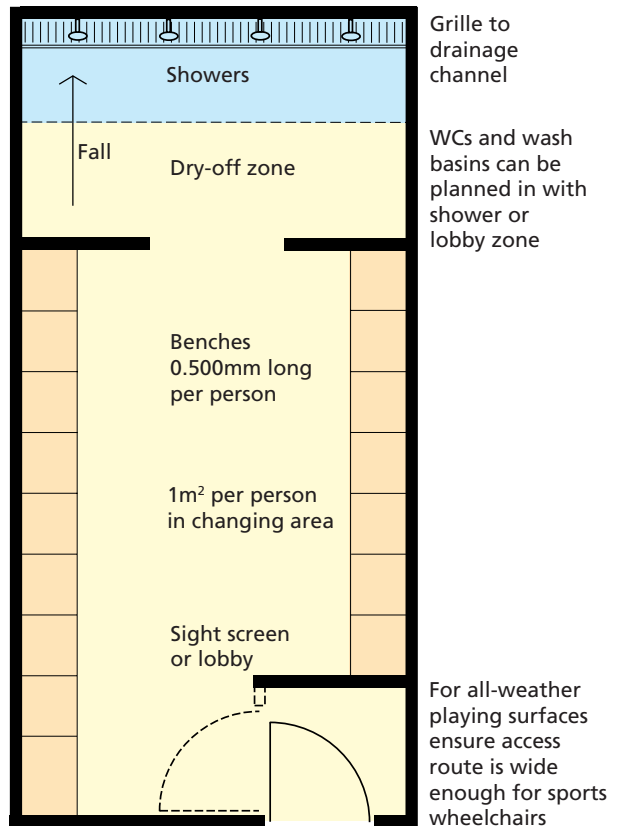
Key points are:

- Layouts must provide flexibility for different proportions of male/female use.
- The changing accommodation should be big enough to accommodate the largest number of players likely to use the room, including substitutes, coaches and, where applicable, the physiotherapist.
- Different sports have different space requirements for players, substitutes and their equipment.
- Generally the minimum area is calculated at 1m² per person. However, cricket requires 1.2m² minimum for players carrying kit bags, but kit boxes will justify more space.
- Changing area sizes for all-weather or full-size artificial turf pitches must be calculated and arranged to respond to high-intensity use. Full-size pitches can be subdivided into three or four play areas, each for 10 or 12 players.
- Each player needs 500mm bench length at a depth of 450mm. Note that two places are lost when benching is carried around an internal corner.
- All changing areas need to be fitted with sight screens to deny views in.

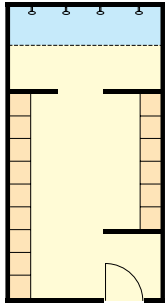
- Home or first team rooms may exceed these sizes and will then be suitable for two junior teams. If clothes storage lockers are included with changing, the recommended areas must be increased to accommodate the space taken up by the lockers.

Minimum recommended areas for teams for the principal sports are:	
Association football	16m ²
Cricket	15m ²
Hockey	16m ²
Rugby – league and union	20m ²

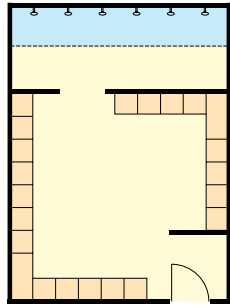
For tennis allow two changing spaces per court. For bowls at least 8+8 spaces and an officials' room.



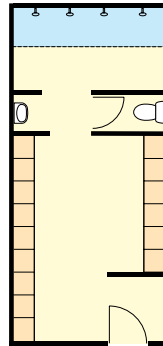
Key criteria for planning a successful changing unit.



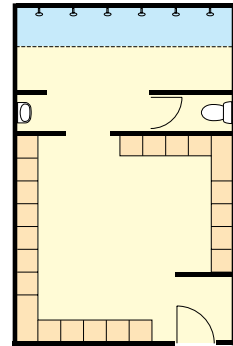
15-person



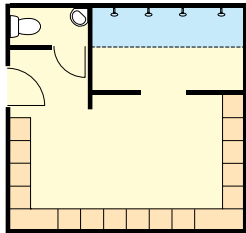
20-person



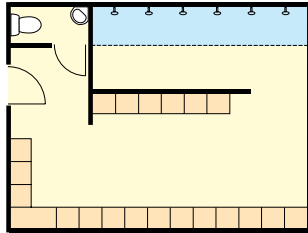
15-person
male or female



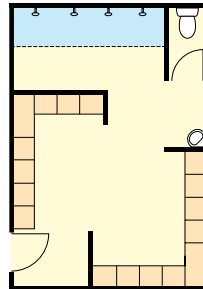
20-person male or
female



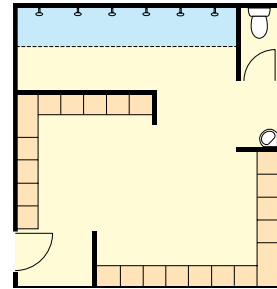
15-person male or
female



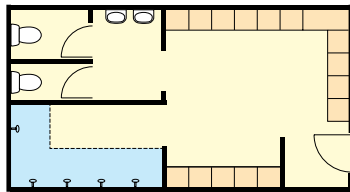
20-person male or female



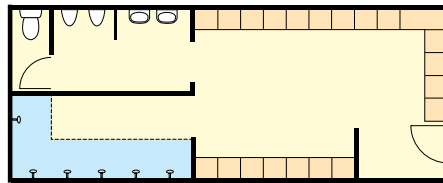
15-person male or
female



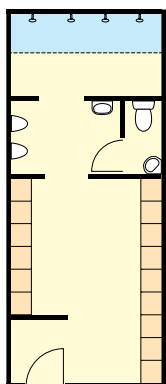
20-person male or female



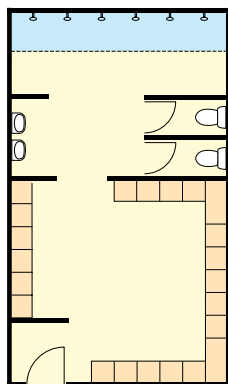
15-person female



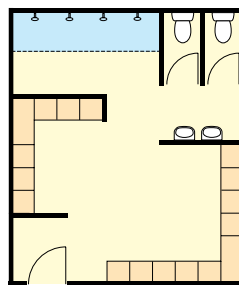
20-person male



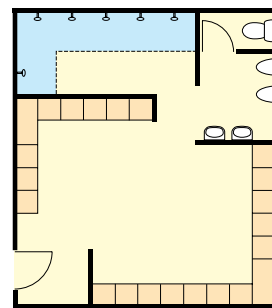
15-person male



20-person female



15-person female



20-person male

Examples of 15- and 20-person changing room plans with and without integral toilets. Note that with benches taken around internal corners two changing spaces are lost.

Showers

Each changing unit requires its own showers located as far as possible from changing entrances and WCs to minimise water migration and to separate mud and moisture.

- Allow one shower point to every three or four changing spaces. Ideally, plan for one square metre for the shower area and the same for the drying area. To accommodate wheelchair access avoid raised thresholds.
- Shower outlets should be at 750mm intervals with 450-500mm between end fittings and side walls. Fittings carried around an internal corner should maintain these minimum standards.
- Showers on opposing walls should be spaced 2.5m apart to permit a central circulation route and will require a separate dry-off area to one end.

Toilets

Each team changing unit should be provided with access to toilet facilities as follows:

- Men's facilities: one WC, two urinals and two washbasins.
- Women's facilities: two WCs and two washbasins.

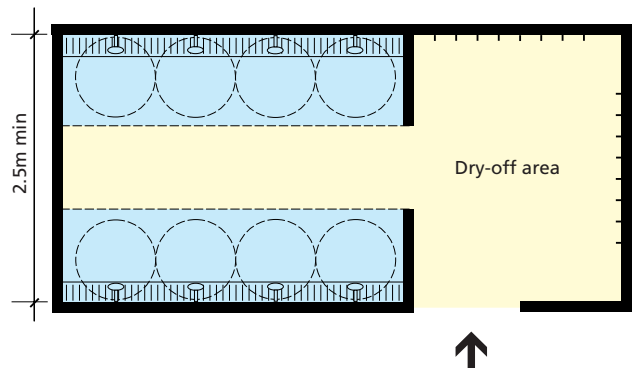
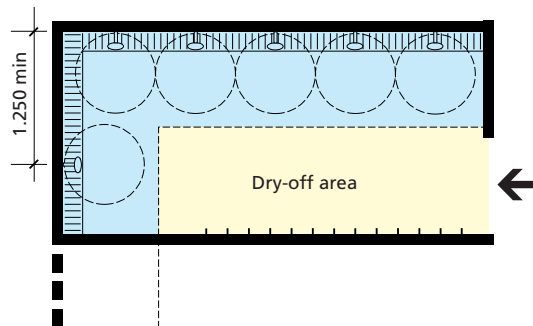
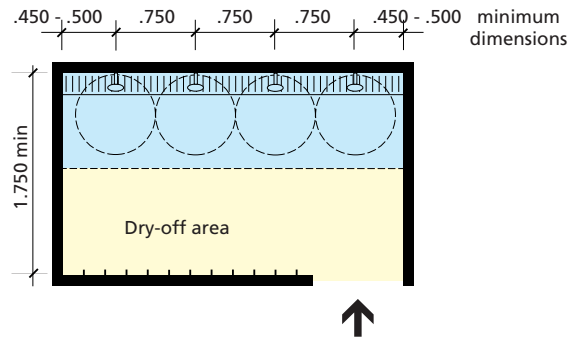
Small pavilions

Small pavilions will benefit from having the toilets accessible from a lobby or corridor so that they can be reached from both changing and club rooms.

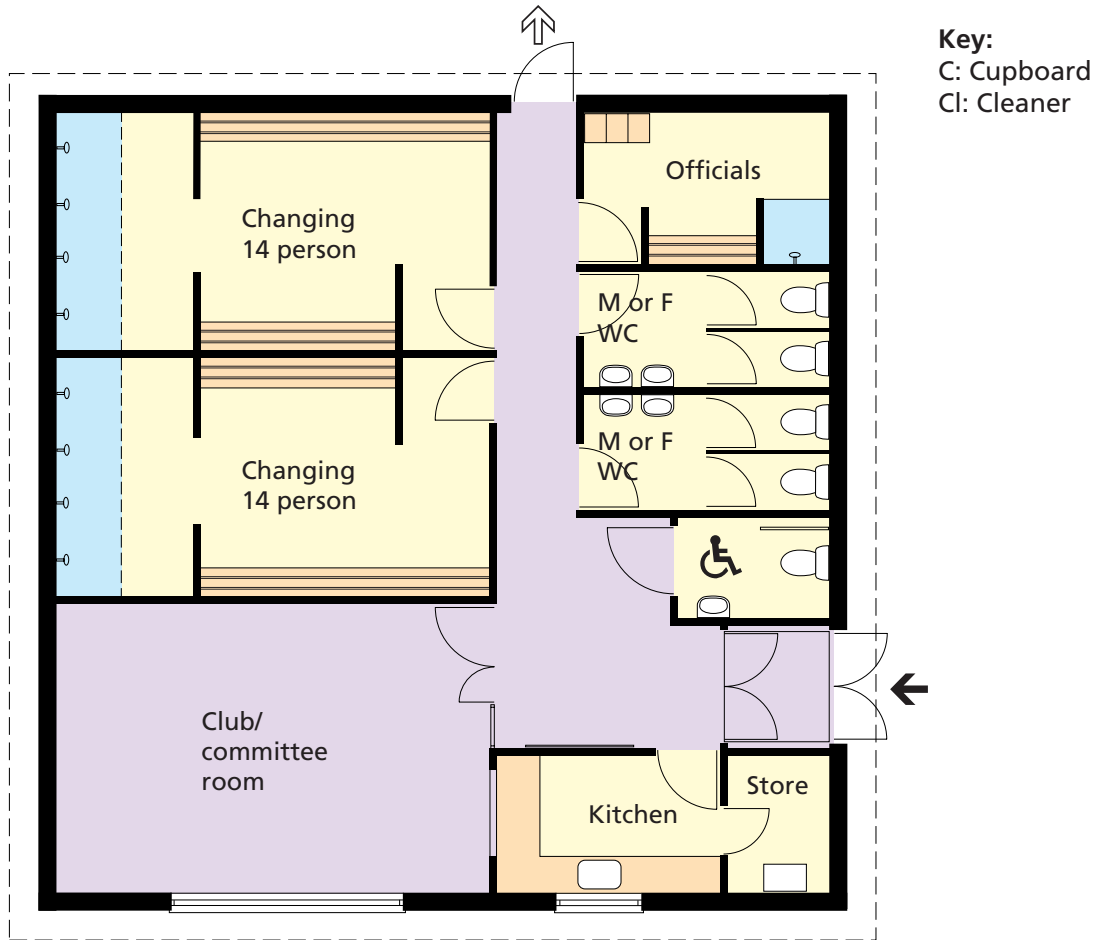
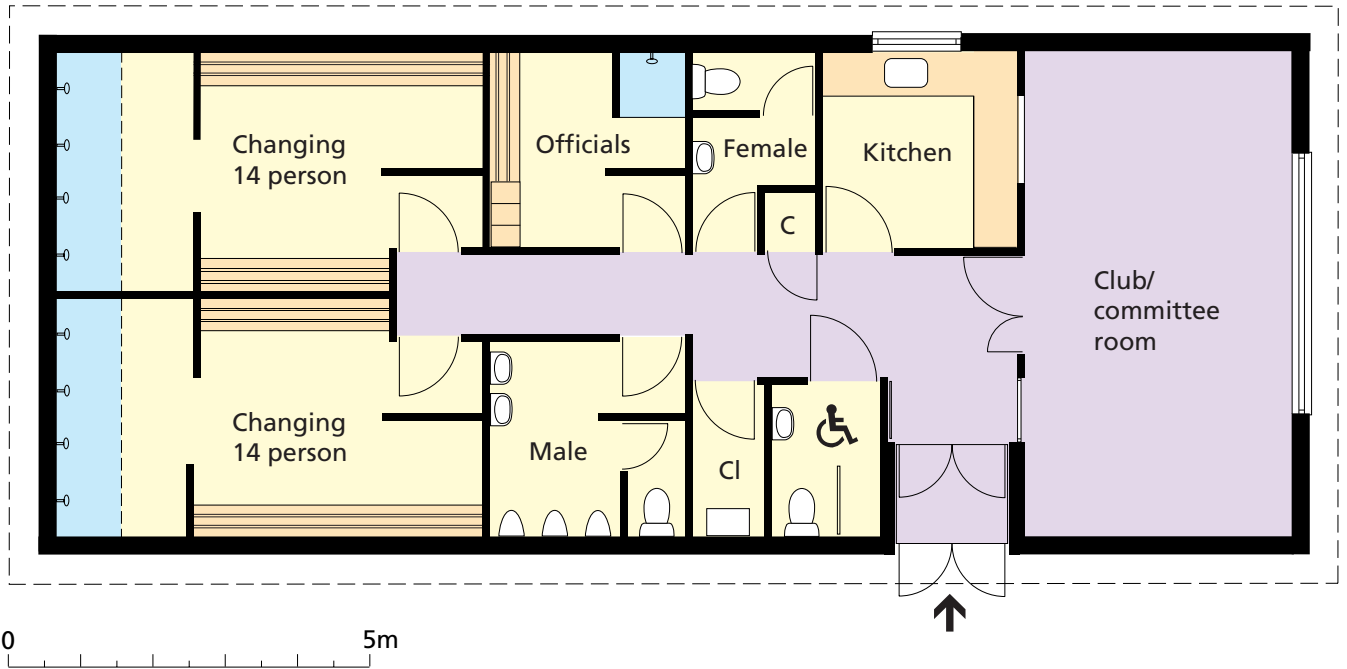
Larger pavilions (with four or more team changing units)

Larger pavilions need a minimum of one WC and one washbasin en suite within each team changing unit, with the balance made up centrally. This arrangement provides convenience with flexibility and economy. Alternatively arrange the full quota of fittings within each changing area.

Where units with full en suite provision are to be allocated for either men or women, fit two WCs and two washbasins.



Layouts for showers and dry-off areas.



Key:
 C: Cupboard
 CI: Cleaner

Two layouts for a small, two-team pavilion with club room. The layout below shows direct access to the pitch and a toilet layout suitable for both men and women.

Communal changing

Communal changing units are a practical solution for large, multiple-pitch sites, particularly when an athletics track, multi-use games area, tennis or basketball courts are included and where a more flexible form of operation is required. Their design follows the same principles as for individual changing units. However, the following additional points should be considered:

- Bench space should remain at 500mm per person but the overall area can often be reduced as a result of more efficient space planning and concentrated toilet provision.
- Communal changing units can be combined with single team units and planned on the buffer principle, with intercommunicating doors providing flexible allocation of space when required.

Clothes storage lockers

These can be arranged in central banks or along changing room walls. Corridor location gives maximum flexibility and can be overseen from an office or reception counter.

- Provide a minimum clearance of 1.5m in front of the lockers so that open locker doors do not obstruct circulation.
- Allow two or three lockers per bench space according to the number of changing cycles, staggered kick-off times or number of athletes at a competition.
- Minimum locker size is 900mm high, 300mm wide and 450mm deep.
- Lockers must be of robust construction.
- Raise clothes storage lockers on a 150mm plinth to protect from corrosion.
- Lockers located in changing areas must be of a moisture-resistant construction.

Toilets

In communal areas the provision of toilet facilities should be based on the following minimum requirements:

- Men: one WC, two urinals and two washbasins per 20 changing spaces.
- Women: two WCs and two washbasins per 20 changing spaces.

Showers

Showers should be at the far end of any changing area and never accessed directly from main corridors.

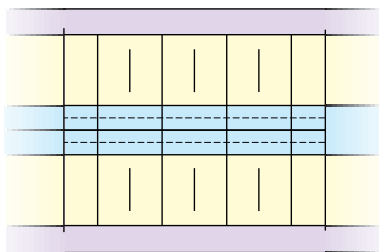
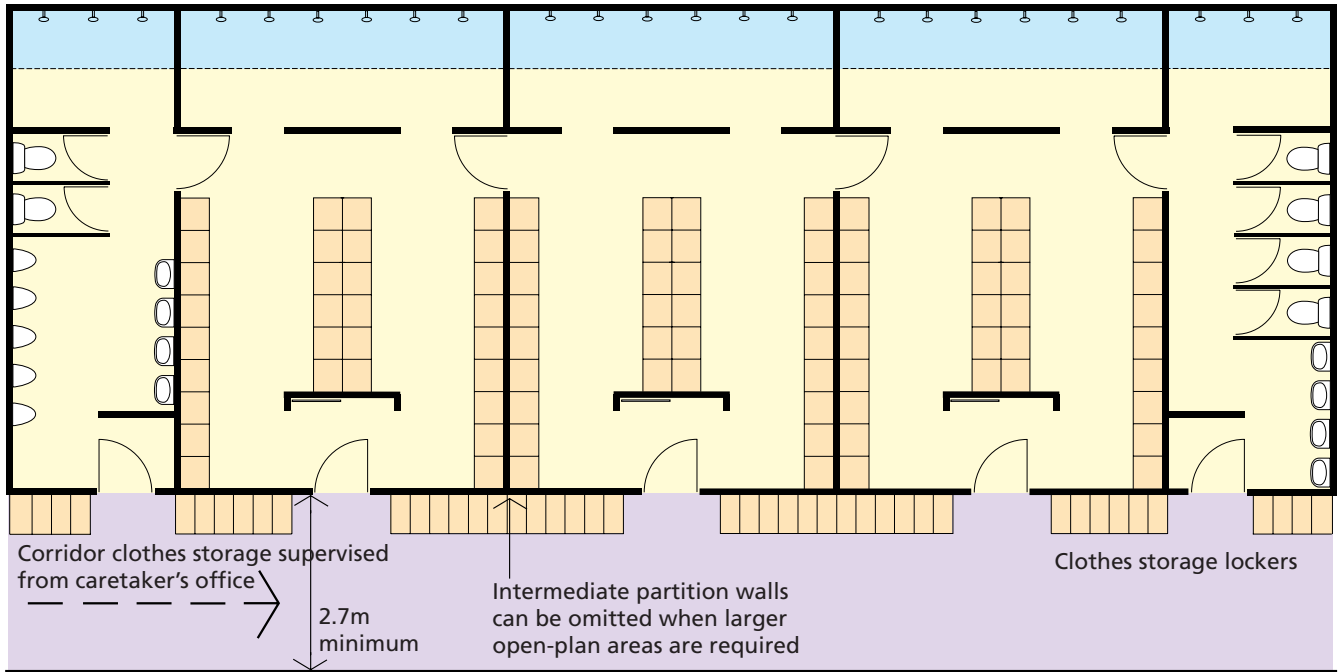
Avoid any cross-over between people coming in from playing fields and those moving between the changing areas and showers.



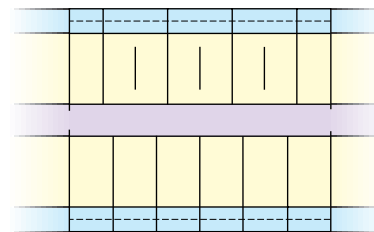
A small cricket pavilion in traditional materials and with the gable developed as a scoreboard.



A timber pavilion and information centre. The recessed frontage and the use of all-timber construction creates an attractive and robust building for this rural location.



Perimeter access
Back to back showers



Central corridor

Example of communal layout. Men's and women's WCs can also be accessed from main circulation areas and flexible allocation is achieved by lockable, intercommunicating doors between 30-person changing units.

Officials' changing

The pavilion should include a self-contained changing room for use by officials. This room can double up as a first aid room or treatment room on non-match days.

- For one pitch or up to three officials, provide a room of 5m² with a shower, washbasin and bench space.
- Secure locker storage is required when the room is used by more than one official.
- Where the room doubles as a first aid room, an area of 7-8m² is required. Allow

for lockers and a secure medical supplies cabinet.

- In rooms for five or more officials, include a WC. If officials of both sexes use the pavilion at the same time, provide separate accommodation.

Cleaner's store

A lockable cupboard for cleaning materials is the minimum provision required.

For multi-team pavilions, provide a store with shelving and a bucket sink adjacent to changing rooms.

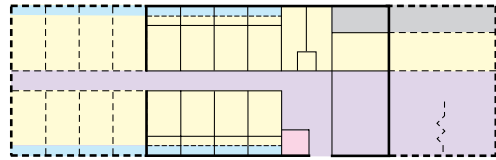
Club room

The club room should have large windows for viewing the principal activity. Consider the range of potential uses that the club room could accommodate.

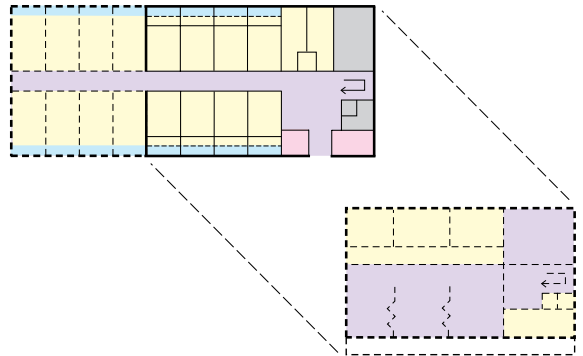
Large club rooms can accommodate:

- Fitness activities and table tennis, if there is a minimum clear space of 8 x 4 x 3m high
- Indoor bowls. Short mat bowls requires a space of 15 x 2.6m including side margins. Carpet bowls can be played within a space of 10.5-11 x 2.6m.

Provide a store for furniture, so that part of the floor can be cleared for dancing, and allow space for any sports equipment such as folded table tennis tables or rolled bowls carpets.

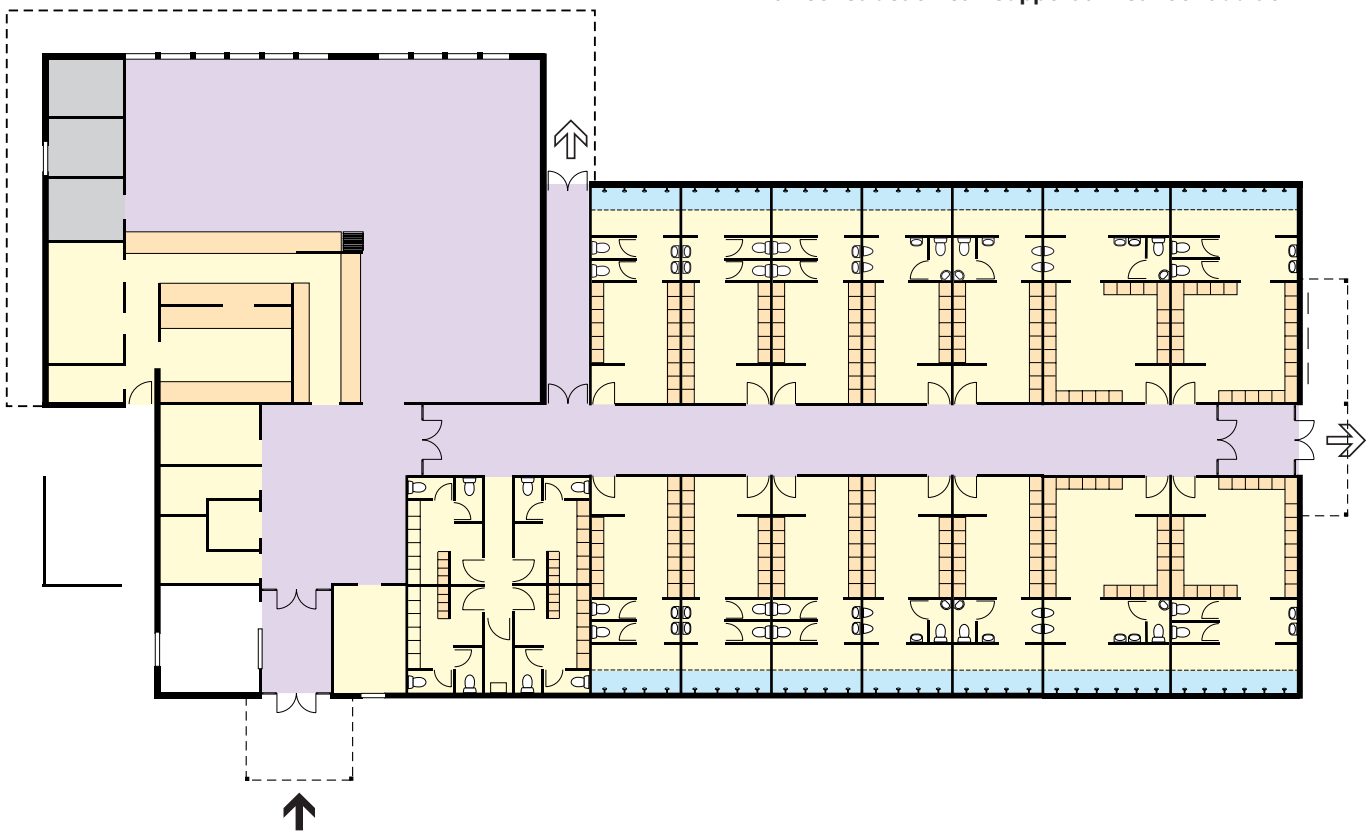


Single storey extension

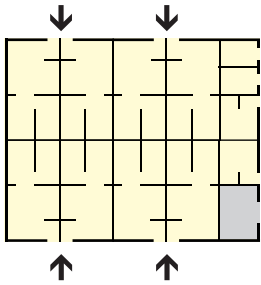


First floor extension

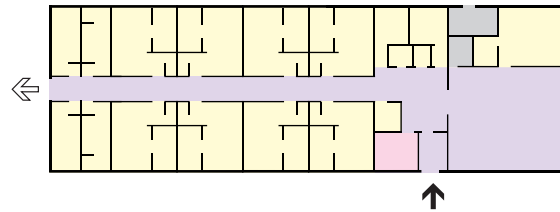
Plan for later extension. A properly organised plan can be extended one way for extra changing and the other for more social accommodation. Rigid cross-wall construction can support a first floor addition.



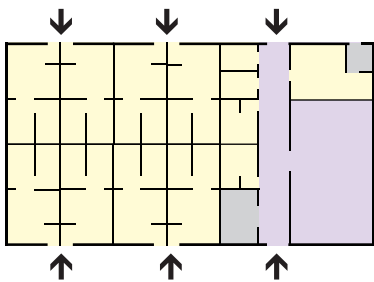
Example of a large pavilion plan with clear segregation of social and changing areas.



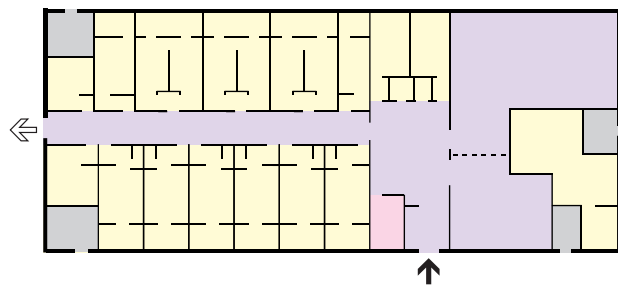
8-team, integral WCs, external access



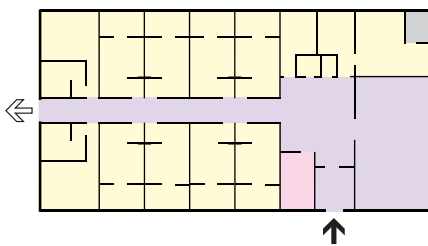
8-team, back-to-back showers, part-integral, part-centralised WCs



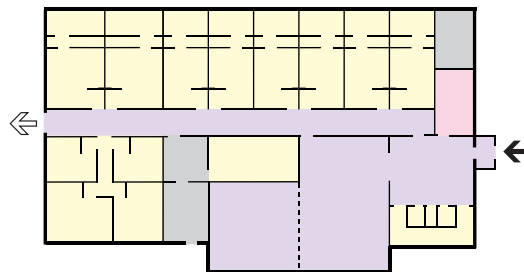
8-team with club room and access verandas



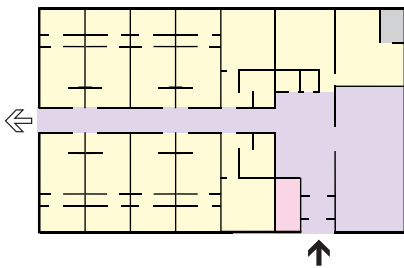
Mix of individual and communal changing with club room and bar area



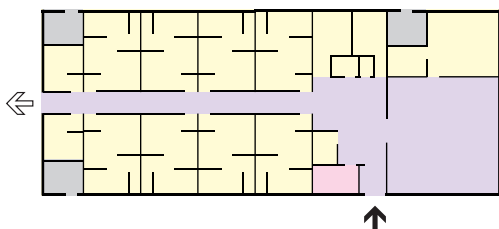
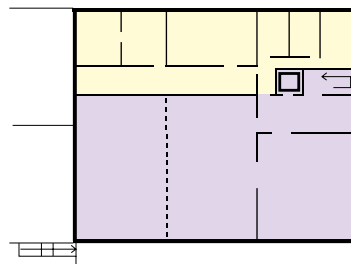
8-team with central corridor and WCs at pitch exit and in the foyer



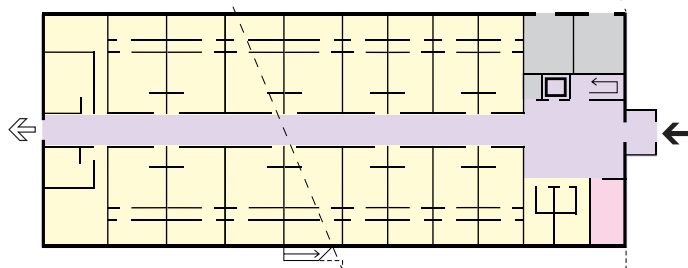
Single-bank changing with club service and officials' rooms opposite



8-team with part-integrated WC provision in place of field exit units



8-team with en suite WCs



Large-scale pavilion with all social content at first floor

Summary of the range and types of pavilion plan in common use.

Building exterior

A vandal-resistant design is invariably required, with limited openings and careful detailing. The degree of protection will be determined by location and the need to design in keeping with the surroundings.

- Pitched roofs are less vulnerable to illicit access. Profiled aluminium/coated steel is preferred to resist breakage and vandalism, but if the roof is slated or tiled a plywood underlay makes a break-in more difficult.



A rural storage building with exposed galvanised steel frame, cedar cladding and a spine roof-light; a low maintenance design concept equally applicable to a small clubhouse.

- Roof overhangs make access more difficult in single-storey buildings and give protection to people and wall finishes.
- Windows in changing rooms should generally be avoided. Roof-lights to both changing rooms and corridors are more secure and can produce a lighter, more airy environment but they should be fitted with internal grilles.
- Wall finishes should be selected with the problem of graffiti in mind. Detailing should not assist vertical access, and rainwater downpipes and their fixings should therefore be specified with care.
- On some sites it will be inadvisable to include open porches or other places of potential concealment.

- Window frames must be in hardwood, aluminium, galvanised steel or UPVC to reduce maintenance.
- External doors should be limited in number and of robust specification. Where there is central internal circulation, avoid individual field exits from changing rooms, which increase floor area and decrease security.
- Door and veranda thresholds must be ramped for wheelchair access. The number of door openings should be restricted and door leaves and ironmongery should be of high specification.
- Consider roller shutters to windows in all locations prone to vandalism.

External works

- Provide non-slip, well-drained surfaces in the vicinity of the building. Avoid the use of light coloured pavings to terraces, they can cause distracting glare.
- Disabled parking bays should be as close as possible to the entrance and have ramped curbs.
- Coach as well as car parking will usually be required and service vehicle access and turning must also be considered.
- Synthetic-surfaced playing areas require paved access to the pavilion, routed to deter use by grass pitch players.
- Good lighting levels are an essential safety feature around the building and the car park.
- Boot scrapers outside the changing entrance encourage boot cleaning and removal, especially if under cover.
- Buildings always look better when proper attention has been paid to their immediate surroundings. This subject is covered in detail in a separate Guidance Note.

Building interior

Floors

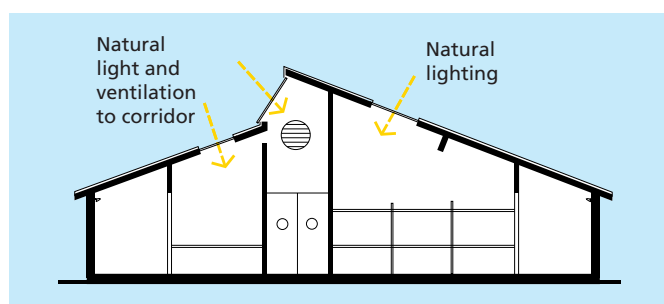
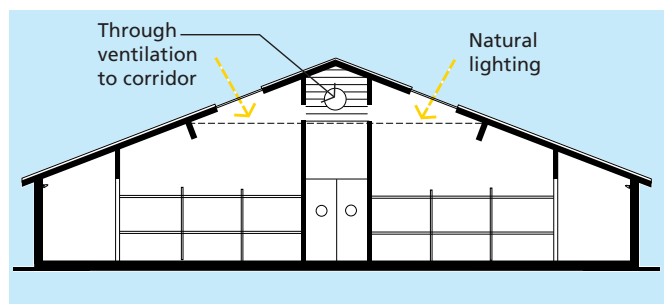
- Concrete floor construction is required for all ground floors either power-floated or screeded, or screeded pre-cast planks.
- In changing rooms and showers floors must be finished with slip resistant ceramic tiles to provide an easily cleaned and durable surface.
- Shower dry-off zones should be laid to fall towards the shower floor which in turn should fall to a drainage channel with a continuous lift out grille.
- The main entrance and changing entrances require foot-wells of at least 1.2m length, with mats for both scraping and drying.
- Floors outside the changing areas, especially in rooms at an upper level, can have less durable finishes and carpet is often preferred in these social spaces. Club, weights or fitness rooms that are adjacent to changing could have heavier use and need to be specified with care.



Avoid false ceilings in changing rooms. Use roof-lights to give a sense of space.

Walls

- Internal walls must be strong enough to withstand impact and to support coat peg rails and possibly kit bag racking and cantilevered benching. Brick, dense concrete block and modular concrete panels are suitable materials.
- Timber framing can provide quick and economic construction but must be carefully specified and detailed with particular attention to moisture protection. Always raise stud-frame sole plates above slab level on a concrete curb.
- Partition lining should be plywood or glass fibre-reinforced plasterboard. If plasterboard is used as a finish it must be backed with plywood. Marine grade plywood is essential behind shower tiling.
- Walls to changing rooms and showers must be finished with ceramic tiles from floor to ceiling. If walls continue upwards to meet a pitched roof tiles can be stopped at door height.
- Doors should be of solid core construction with good-quality ironmongery and protected with kick plates.



Two sections that utilise cross-wall construction, avoid flat ceilings and permit roof-lighting and high level ventilation.

Ceilings

- Pitched roofs incorporating roof-lights invariably provide the most pleasant environment for changing.
- Lightweight suspended ceilings should not be used as they are rapidly vandalised.
- In two-storey buildings the ceiling finish should be robust.
- Glass fibre-reinforced plasterboard should be specified throughout changing, shower and circulation areas.

Fittings

Benches

Benches should be of slatted, light coloured hardwood or dense, solid plastic planks on cast aluminium or galvanised steel cantilever brackets.

Coat hooks

Coat hooks should be mounted over benches and in shower dry-off areas. Provide two snub pattern hooks for each shower or bench space.

Mirrors, notice boards, etc

- Fix mirrors in each changing unit.
- Wipe boards to be fitted in home and first team changing rooms.
- Provide robust wall-mounted wastebins in all changing rooms.
- Provide notice boards in the entrance area.

Grooming areas

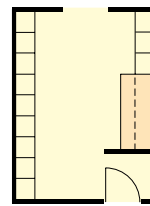
Grooming areas need a shelf and mirror – the provision of hair driers should be considered. These facilities could be included in individual changing rooms or in communal toilets or at a re-entry point in the main corridor.

Clothes storage lockers

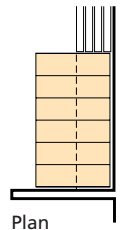
Typically 500mm deep, 300mm wide and arranged in columns 1.8m high. Bowlers' lockers are 300mm cubes.

Special fittings

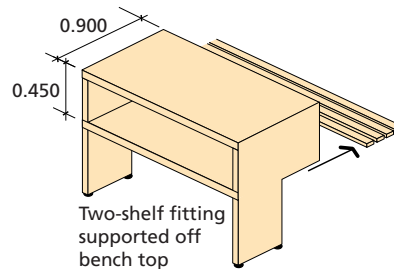
Consider providing special fittings for the storing of cricket kit boxes which, with dimensions of 900 x 250 x 400mm, are cumbersome to unload and store.



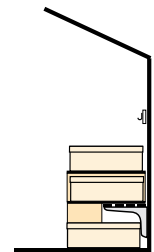
Fitting installed in a football/hockey size changing unit



Plan

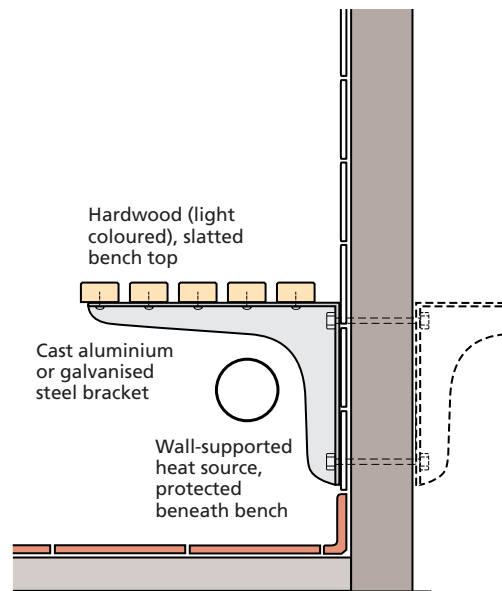


Two-shelf fitting supported off bench top



Section

Cricket kit boxes – a mobile storage option to prevent floor clutter.



Cantilevered benching and wall-hung heating source allow easily cleaned floor surfaces.



Heating and ventilation

Good design of the heating and ventilation systems is important, not only to provide a comfortable environment but also to ensure that the problems of condensation and mould growth are avoided. Due to the nature and type of use, changing rooms create conditions that are ideal for these problems.

Insulation

Consider the provision of insulation above Building Regulations standards.

Heating

- The type of heat source is dependent on the fuel available and pattern of use.
- Electric convector heaters are cheap to install and easy to control with thermostats and time clocks, but they do have high running costs and are generally of lightweight construction and rot and deteriorate rapidly. If they are used they must be carefully selected and specified.
- For pavilions/changing areas with continuous use, either underfloor heating using off-peak electricity and buried cables, or a water-based system with a gas boiler will provide lifelong low maintenance and comfort, but both systems are more expensive to install.
- Gas- or oil-fired water-based central heating systems are likely to be the most appropriate for most pavilions.
- Temperatures need to be:

changing and shower areas	20-22°
toilets and other areas	18-20°
- Provide background heating to give frost protection in cold weather.
- Electric heaters must be robust and located for protection, for example beneath benches.
- Radiators or heaters should be sited beneath benches or in locations that prevent damage or burns.
- The heating should be controlled centrally with a time clock but with tamper-proof local thermostats to give a degree of limited local control and sensitivity. Frost protection must always be considered.
- Larger pavilions will have boiler or plant rooms which should be located for ease of service vehicle access.



A generously designed first floor club room for a specialist hockey centre. The strutted columns and use of the roof volume give an increased sense of space to this attractive facility.

Ventilation

- Provide for efficient cross-ventilation throughout the building by fitting air bricks, grilles and/or trickle ventilators in external walls. Undercut internal doors or fit robust transfer grilles for ventilation when the building is locked up.
- Fit mechanical extracts to changing area toilets, kitchens and shower areas.
- All fans should be fitted with humidistats and over-run switches and provide eight air changes per hour.

Electrical services

Lighting

Light fittings should be fixed directly to the wall or ceiling and be of robust, moisture-resistant design. Avoid cutting through ceiling vapour barriers.

- Consider the use of presence detectors throughout.
- Provide 100-150 lux minimum throughout the changing block, with switching from a central, secure location.
- Consider the need for external lighting linked to time clocks or sensors.

Power

- Provide an electrical intake and meter cupboard, even for the smallest pavilion.
- Fit guarded power sockets for cleaning equipment throughout the changing areas. A corridor location is preferable and the circuit should be protected with a residual current circuit breaker.

Other electrical services

- Include a telephone in all but the smallest pavilions.
- Consider an electronic security system and contact the local Crime Prevention Officer for advice.

Water services

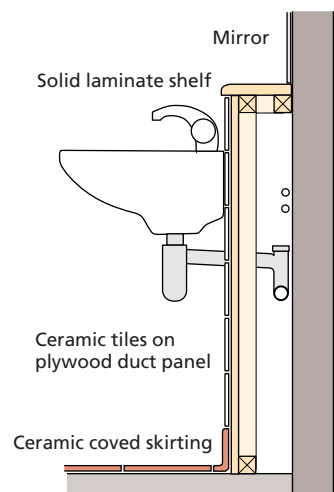
- Wherever possible, pipework should be concealed in well-detailed, accessible ducts to reduce vandalism and to improve its appearance.
- Insulate all pipework and run beneath roof/ceiling insulation for extra protection and ease of maintenance.
- In 'all-electric' pavilions, consider a central, multi-point heater in preference to individual shower or basin heaters with limited output.
- Hot water storage is wasteful except where there is continuity of use, for example in educational establishments.

- Cold water storage, if required, should be in an insulated tank above a shower or other drained area with a frost-protection heater.
- If a drinks vending machine is fitted it will require a mains water supply.
- Use thermostatic mixing valves to control the flow and temperature of any stored water.
- Fit cylinders with centrally-located 7-day, 24-hour time switches.
- Provide bib-cocks in shower areas to allow hosing down.
- Drinking fountains should be provided.

Sanitary fittings

Sanitary fittings must be specified with care:

- 'Back to wall' WCs assist with cleaning.
- Individual wall-hung basins are easier to maintain than a vanity top with inset basins. Note that it is essential that the basin-mounting bracket is fitted with a substantial fixing.
- Stainless steel fittings are appropriate for some locations.
- Air-admittance valves, correctly installed, should be used in preference to roof vent terminals to avoid having to break through the roof finish.



Basin ducts protect pipework and simplify surface cleaning.



A large athletics pavilion with social accommodation arranged above changing and storage areas, providing excellent viewing with increased security.

Sport England aims to lead the development of sport in England by influencing and serving the public, private and voluntary sectors. Our aim is:

more people involved in sport

more places to play sport

more medals through higher standards of performance in sport

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