

PrimarySpaces

Improving outdoor PE and sport facilities

Primary Spaces

Component Specification and Safety Standards





Introduction

The Primary Spaces fund will provide outdoor multi-activity areas which can be used by Primary School aged children both within the curriculum and out of school hours.

As part of the programme staff and volunteers at the school will receive information on how best to use the new facilities.

To make the initial application process as straightforward as possible a simple catalogue of options and budget costs (excluding VAT) has been put together.

Post award, Schools and the appointed contractor will check the feasibility of the components and configurations selected at the time of application and agree with the school the most suitable combination given any specific site constraints and the available budget.

The components and options have been designed so they can be easily incorporated into small spaces on primary school playgrounds. They are designed to be added to existing playground areas to significantly enhance them and enable schools to make good use of relatively small spaces and provide facilities which are low cost, but provide a degree of enclosure, colour and innovation.

How to use this document

This document provides information on the technical requirements of the Primary Spaces components and forms part of any tender and contract documentation.

It provides relevant, generic drawings, specifications, codes of practice and schedule of services.

The intent of this document is to provide the dimensional and performance criteria for the constituent elements of the Primary Spaces components whilst providing significant scope for contractors and installers to utilise their own standard components and be able to offer alternative and innovative solutions at tender and detailed design stages.

QUERIES AND RESPONSES

All queries and responses must be submitted in writing to:-

primaryspaces@gleeds.co.uk

ALTERNATIVES & INNOVATION

The purpose of the details is to illustrate a design intent and required performance.

There are numerous play industry products and materials available which may meet the requirements indicated.

The contractor is encouraged to consider appropriate alternatives (either stock items or bespoke) which fulfil the required criteria whilst maintaining an acceptable standard of quality.

Any alternatives should be provided as separate, additional items to the main response. These will be duly considered and selected if deemed appropriate.

PS coding

The 'PS' code is a unique alpha numeric reference to a particular component of the Primary Spaces.

Tenderers/contractors should refer back to the Programme Project Managers for clarification on any points.

The contractor will be responsible for all site surveys, supply and procurement of all components, delivery, preparation, assembly and installation, commissioning, handover and health and safety of all elements related to the project.

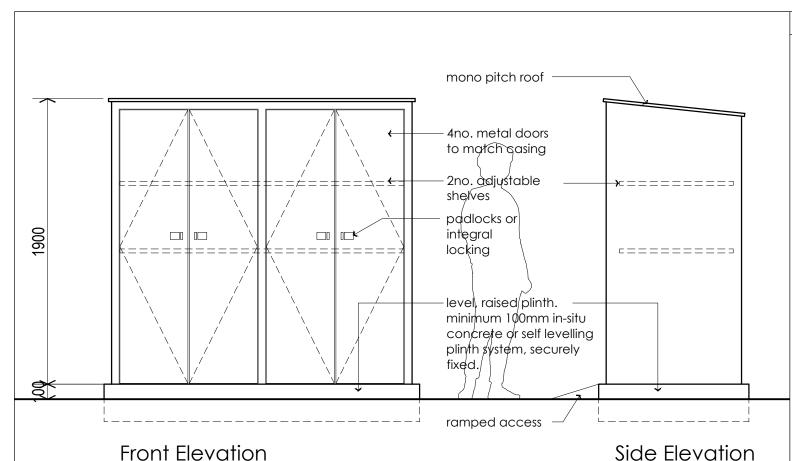
All details and data should be considered as minimum requirements.

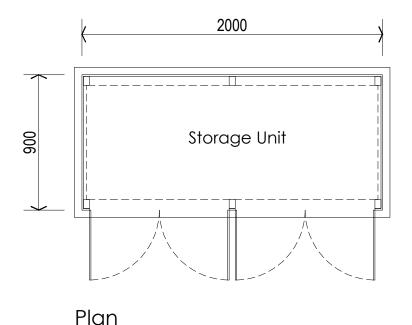
All equipment is to comply with the requirements of BS EN 1176 and additionally with such other standards and specifications as are indicated at appropriate points in this document.

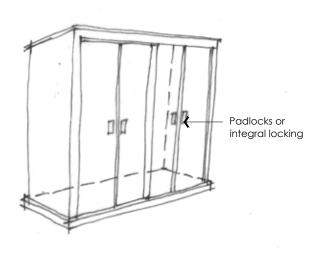
The contractor/manufacturer/supplier should:-

- Source ex-stock components and materials wherever possible or consider simple adaptation of their existing, or extended, supply chain components.
- Comply with all relevant British and European Standards and Codes of Practice.
- Whilst it is anticipated that the nature and scope of the works will
 not require building regulations or planning approval contractors
 must consult and obtain clarification/approval (if required) with
 all Local and Statutory Authorities.
- Conduct all necessary site specific Safety and Risk assessments and identify all hazards.
- Contractors are to provide evidence that the equipment and surfacing they intend to supply meets these requirements.
 This evidence should be in the form of certification by an independent, ISO 17025 certified laboratory or test house.
- In addition, the supplier/contractor will be required to provide the school/LEA with safety certification









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- panels, materials, surfacing, line markings and patterns should be a minimum of:-
- Steel Structure: 10-15 years
- Timber: 10-15 years and FSC certified

The contractor/manufacturer/supplier should:-

- HDPF Panels: 5-10 years
- Polymeric Surfacing, markings and patterns: 5 years
- Spray and line markings:

• Installation

- Source ex-stock components and materials wherever possible. Otherwise simple adaptation of supply chain components is acceptable
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SPECIFICATION Description:

Secure and weatherproof unit for the storage of equipment associated with the Primary Space activities.

2.0m long x 0.9m deep x 1.9m high (approx.)

Specification:

This item can be sourced as a prefabricated unit from various UK suppliers. Therefore it should be considered to be an 'ex-stock' item which meets the following criteria:

Constructed with powder coated metal, framed and panelled enclosure.

Lockable metal access doors, mono pitch roof. Storage unit set on level, raised plinth. Choice of colours to be from standard manufacturers range

and generally as illustrated in the prospectus.

- Hot-dipped galvanised steel (min. 10 year life span).
- 2 Padlock points or integral locking system.
- Securely anchored to level, raised plinth. Minimum 100mm in-situ concrete plinth or self levelling plinth system securely fixed.
- 2no, adjustable height shelves
- Fully Ventilated.
- 10 Year Anti-Rust Manufacturer's Guarantee
- Exit / entry ramp across the full door opening width.

The contractor shall be responsible for site survey, supply/procurement, delivery, preparation, installation, commissioning and handover of all elements related to this component

STEEL SPECIFICATIONS (MINIMUM REQUIREMENTS)

Pre Painted Galvanised Steel Sheet - Utilised for the wall, roof and doors of the storage unit

Epoxy Primer

Thickness 0.30mm Base Metal Thickness (bmt)

G550 High Tensile Tensile

Coating Z18 180 grams of Zinc Coating per m²

Paint Top 5 mic.

Primer Paint Top

18-20 mic. Regular Modified Polyester

Coat Paint Back

5 mic. **Epoxy Primer**

Primer

Paint Back

Top Coat 10 mic. Epoxy Light Grey

Galvanised Steel Sheet-for the frame of storage unit

Thickness 0.55-0.7mm Base Metal Thickness (bmt)

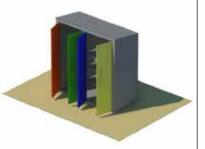
G300 Mild Steel Tensile

275 grams of Zinc Coating per m² Coating Z275

The majority of this unit type requires on site assembly, by the contractor, of pre manufactured components. The unit is to be located on to a suitable level, raised base according to the suppliers recommendations and which has been prepared in advance by the contractor to the relevant BS/EN requirements

PS 5

Storage Unit

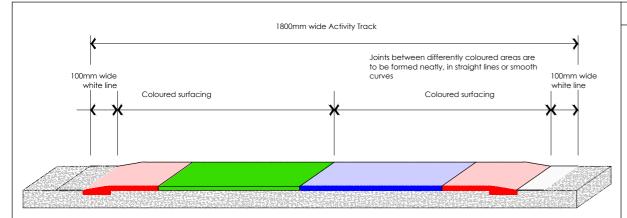




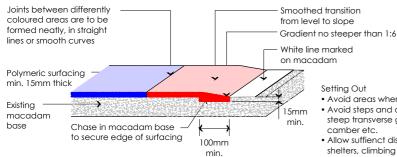
PrimarySpaces







Typical Track Section



Polymeric Surfacing Edge Detail

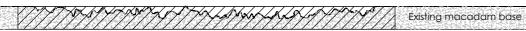
Settina Out

- Avoid areas where macadam is unsound.
- Avoid steps and other changes in level, steep transverse gradients, adverse camber etc
- Allow suffienct distance to doorways, shelters, climbing frames, swings and
- other equipment. Refer to BS 5696. Avoid crossing or connecting to other
- markings
- Avoid tight bends.
- Route to be clear of any trees to avoid slipperv surface due to leaf fall.

Methods of correcting faults in the existing macadam surface

Areas of serious fretting or break-up - where more than one third of the thickness of the wearing course has been lost - shall be broken out and replaced with open-textured macadam or, if the grea is small, with resin-bound 3 to 10mm limestone or granite chippings.

Hatched volume to be cut out and renewed



Correction of significant irregularities in the existing surface may be carried out using resin-bound 2-5mm gravel or aggregate. Breaking out and resurfacing with new wearing course material would be an acceptable alternative.



Where minor irregularities are to be corrected, this may be carried out by increasing the thickness of the polymeric surfacing, provided the thickness does not exceed 25mm at any point.

Polymeric surfacing Existing macadam base

ALTERNATIVES & INNOVATION

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- Timber: 10-15 years and FSC certified
- HDPE Panels: 5-10 years
- Polymeric Surfacing, markings and patterns: 5 years
- · Spray and line markinas: 3 years
- Installation Minimum 1 year

The contractor/manufacturer/supplier should:-

- · Source ex-stock components and materials wherever possible. Otherwise simple adaptation of supply chain components is acceptable.
- Comply with all relevant British and European Standards and Codes of Practice
- Consult and obtain clarification/approval (where required) with all Local and Statutory Authorities.
- Conduct all necessary Safety and Risk assessments and identify all hazards. Contractors are to provide evidence that the equipment and
- surfacing they intend to supply meets these requirements. This evidence should be in the form of certification by an independent, ISO 17025 certified laboratory or test house.
- In addition, the supplier/contractor will be required to provide the school/LEA with safety certification

SPECIFICATION

Description:

A defined route for various activities, forming an extension to and complementing other Primary Space components, providing a direct link between the games space and the selected school access points.

Minimum 1.8m wide (2no. parallel lanes of 0.9m) x length. Fach lane will consist of a band of solid-coloured permeable EPDM surfacing, with the junction between the lanes formed neatly and tidily where the areas of colour meet. The outer edges of the Activity Track will be marked in solid white lines on the macadam surface. The 0.9m dimension refers to the level width of the lane excluding any ramped or feathered edge.

The route and length of the track will be determined by the available playground space.

Specification:

Synthetic Polymeric material applied to existing playground surfacing. Activity track surfacing shall comply with BS 7188.

Synthetic surfacing is to be installed directly onto the existing macadam of the school playground.

Note that where there are changes in surfacing type within a single area, there exists the possibility of trips at edges and joints. There may also be differences in slip resistance between the types of surface. These differences, if excessive, can cause slipping accidents even when the areas individually have satisfactory slip resistance The route of an Activity Track is to be defined by the Applicant.

SPECIFICATION continued

The Contractor is responsible for checking the route to ensure that it involves no awkward or unacceptable changes in longitudinal or transverse gradient or excessive changes in level, steps etc.

Acceptable procedures for the preparation of the site are described below. If the condition of the existing macadam is too poor to permit the installation of surfacing without more drastic remedial work the Contractor may suggest a more appropriate route for the trail.

The Contractor is required to provide a 5-year Warranty on the slip resistance and durability of the surfacing and its adhesion to the substrate

Materials, performance and installation requirements

Where no equipment is present or where there is no Critical Height requirement, surfacing shall consist of flexible resin-bound rubber granulate no less than 15mm

Where a requirement exists, the Critical Height of the surfacing shall comply with FN 1176

The abrasion resistance, slip resistance, resistance to indentation, flammability and tensile properties of the surfacing shall comply with BS7188 in all cases. The surfacing shall be based on red / blue / green / yellow / orange / beige EPDM granule. The granule size shall be 1 to 4 mm. Binder content shall be no

On flat and level areas, surface regularity shall be such that there is no deviation exceeding 6mm beneath a 3m straightedge

On any area where measurement with a 3m straightedge is impossible or impracticable (for instance where the extent of an area is less than 3m, where equipment would prevent the use of a 3m straightedge, or where the contours of the ground are not flat) surface regularity shall be such that there is no deviation exceeding 3mm beneath a 1m straightedge and no deviation exceeding 2mm beneath a 0.3m straightedge. The surface finish shall in all cases be smooth

Site preparation

Macadam areas are to be cleaned with a vacuum sweeping machine to remove all mud, litter, moss, loose debris, loosely-bound aggregate etc. If there is evidence of ponding, affected areas are to be pierced with 25mm holes on 700mm centres, to a depth of no less than 450 mm. No drilling shall be carried out without first sweeping for buried services. The responsibility for rectifying any damage to underground services of any type lies with the contractor.

If there is evidence of serious fretting or break-up of macadam the affected area shall be broken out and replaced with open-textured macadam or, if the area is small, with resin-bound 3 to 10mm limestone or granite chippings. Serious fretting or break-up is considered to have occurred where more than one third of the thickness of the most recently installed wearing course has been lost. Where correction of significant irregularities in the existing surface is required, it may be carried out using resin-bound 2-5mm gravel or aggregate. For large areas it may be more economical to break out and resurface with new wearing

Where minor irregularities are to be corrected the corrections may be carried out by increasing the thickness of the polymeric surfacing, provided the thickness does not exceed 25mm at any point. With 2-5mm aggregates the minimum binder:aggregate ratio shall be at least 1L per 10kg

A sprayed application of binder is to be applied to friable areas of macadam, after they have been cleaned. Application is to be at a rate of no less than 1L of binder per sq. m, the volume of binder to be measured before any dilution required to allow it to be sprayed.

All areas of macadam to receive surfacing shall be primed with a suitable binder, as recommended by the manufacturer of the binder employed in the surfacing, applied at the rate recommended by the primer supplier. Where the surfacing finishes beneath a fence or other panel, its edge may stop square. Where the edge of the surfacing is exposed to wear or could potentially cause tripping a chase at least 15mm deep by 100 mm wide is to be cut in the macadam surface. The edge of the surfacing is to be formed into the chase, giving a smooth transition from surfacing level to surrounding ground level with a aradient no steeper than 1:6.

Installation of surfacing

Surfacing shall be installed on primed macadam before any rain, dew or other moisture falls on it and in any case within 4 hours of the application of the primer. All surfacing must be properly cured and ready for use on the next school day after installation. For instance, surfacing should therefore be installed on a Sunday only if the contractor is certain that it will be fully cured by 7.00 am on the

Where contiguous areas of polymeric surfacing are laid more than 4 hours apart, or if any rain, dew, or other moisture falls on the first area of surfacing before the second is laid, a primer shall be applied to the edge of the first area of surfacing before the second area is laid. This applies whether the two areas of surfacing are of the same or different colours.

Exposed joints between contiguous differently-coloured areas of polymeric surfacing shall be made tidily and in smooth curves or straight lines. Where white lines are applied to the surfacing they are to be 50mm wide and are to be marked straight or to accurate radii, as required. Where white lines separate areas of different colours the junction between the colours shall be located so that the white line will cover the junction. Colours changes shall not be visible through white lines. If perceptible ghosting is present an additional coat of white paint shall be applied.

Where any access cover is present in the area to be covered by surfacing its location shall be marked during installation, for instance by insertion of metal pins or similar at the corners of the cover. When the surfacing is fully cured the surfacing shall be cut to allow removal of the cover. Hinged covers may require different treatment. Any key holes or similar must be cut out to allow the use of the appropriate lifters. Before leaving site the contractor shall demonstrate that all covers may be lifted or opened.

Line markings may be applied on a Sunday subject to the paint manufacturer's confirmation that full cure will take place overnight under all weather conditions

PS 6

Activity Track

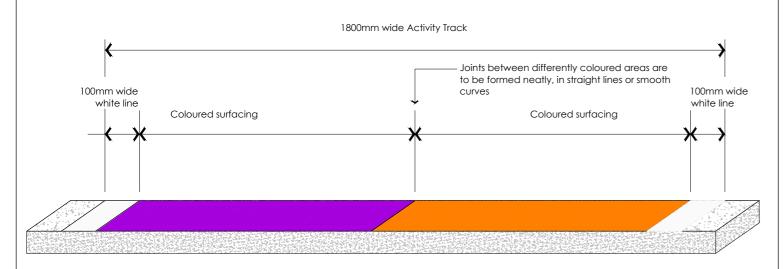












Typical Trail Section

Methods of correcting faults in the existing macadam surface

Areas of serious fretting or break-up - where more than one third of the thickness of the wearing course has been lost - shall be broken out and replaced with open-textured macadam or, if the area is small, with resin-bound 3 to 10mm limestone or granite chippings.

Hatched volume to be cut out and renewed

Correction of significant irregularities in the existing surface may be carried out using resin-bound 2-5mm gravel or aggregate. Breaking out and resurfacing with new wearing course material would be an acceptable alternative.

Stone/binder regulating layer

Existing macadam base

ALTERNATIVES & INNOVATION

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- Guarantees and warranties on equipment and structures, panels, materials, surfacing, line markings and patterns should be a minimum of:-
- Steel Structure: 10-15 years
- Timber: 10-15 years and FSC certified
- HDPE Panels: 5-10 years
- Polymeric Surfacing, markings and patterns: 5 years
- Spray and line markings: 3 years

The contractor/manufacturer/supplier should:-

- Source ex-stock components and materials wherever possible.
 Otherwise simple adaptation of supply chain components is acceptable.
- Comply with all relevant British and European Standards and Codes of Practice.
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SPECIFICATION

Description:

A defined random route for various activities around the playground which complements other Primary Space components linking the games space and the selected school access points.

Dimensions

1.8m wide (2no. parallel lanes of 0.9m) x length (The route and length of the trail will be determined by the available playground space).

Specification:

Trail defined by polyurethane painted parallel lanes in different solid colours, each 0.9m wide. All applied to existing playground surface

Existing Site

Polyurethane painted meander trails are to be installed directly onto the existing macadam of the school playground. They are to be applied only to macadam surfaces having a smooth, well-bound surface. Acceptable procedures for preparation of the site are described below.

SPECIFICATION continued

If the condition of the existing macadam is too poor to permit its painting without more serious remedial work then, as a first Option, the Contractor may suggest an alternative route which will avoid the poor macadam. If no such route is available, the painted Meander trail should not be installed.

Painted trails should avoid areas where it is evident that ponding occurs.

The Contractor is required to provide a 3-year Warranty on the slip resistance and durability of the paint finish and its adhesion to the substrate.

The Contractor should take note of the Warranty requirements for the paint finish.

Materials, performance and installation requirements

A polyurethane painted meander trail is a 1.8m wide defined route following a course around the play area. The trail will be marked as two lanes, each lane to be marked 0.9m wide in solid colour. The junction between the two colours is to be tidily and neatly made in smooth curves or straight lines. Painted meander trails are to be marked using spray-applied

polyurethane paints. Two coats of paint are to be applied to coloured areas.

The slip resistance of all painted areas shall comply with the requirement of BS7188.

Site preparation

Macadam areas are to be cleaned with a vacuum sweeping machine to remove all mud, litter, moss, loose debris, loosely-bound aggregate etc.

Where correction of significant irregularities in the existing surface or of minor fretting is required, it may be carried out using a resin-bound aggregate sized to match the existing macadam.. The minimum binder:aggregate ratio shall be at least 1L per 10kg.

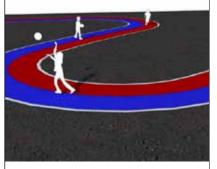
If there is evidence of serious fretting or break-up of macadam the affected area shall be broken out and replaced with macadam of grading to match the existing. Serious fretting or break-up is considered to have occurred where more than one third of the thickness of the most recently installed wearing course has been lost. New macadam shall be allowed to weather for at least 14 days before painting.

A sprayed application of a polyurethane binder is to be applied to friable areas of macadam, after they have been cleaned. Application is to be at a rate of no less than 1L of binder per sq. m, the volume of binder to be measured before any dilution required to allow it to be sprayed.

It is the Contractor's responsibility to assess the condition of the existing macadam, to propose and put into effect any remedial measures required and to accept liability for the durability and safety of the resulting installation.

PS 7

Meander Trail

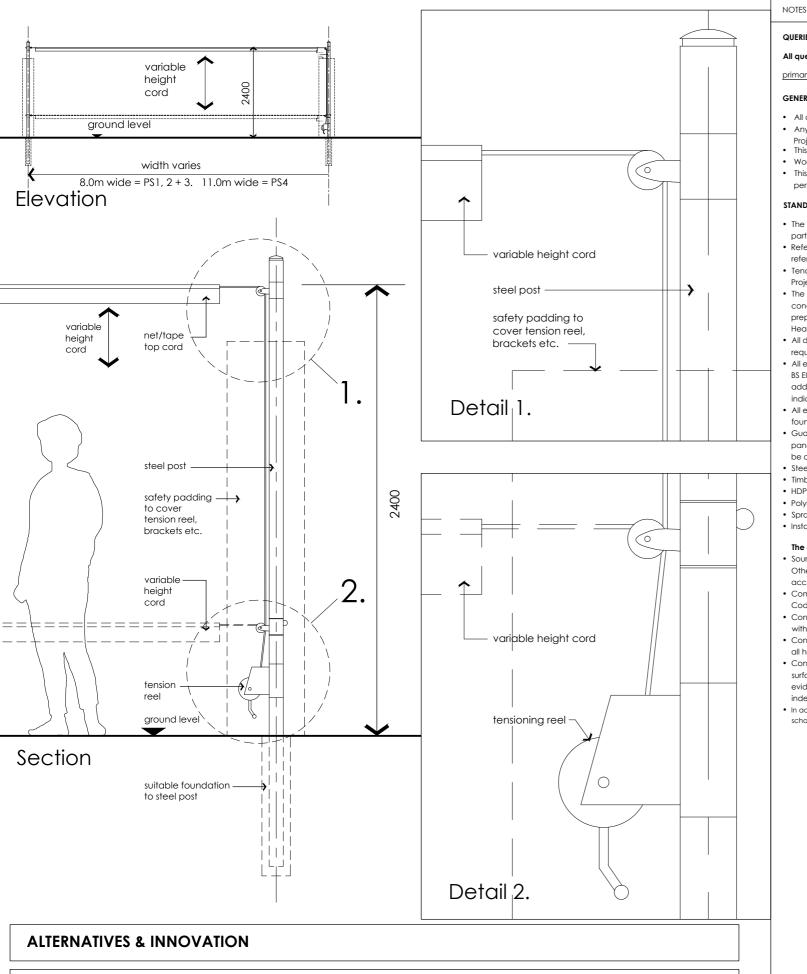












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SPECIFICATION

Height adjustable tape/cord for supervised bat and ball and volley games.

Full width of marked activity area with adjustable height between 0.6m to 2.4m

Demountable tape/cord suspended full width of marked activity area between powder coated metal posts.

Materials, performance and installation requirements

The entire assembled apparatus is to comply with the relevant requirements of EN 1176 with the cord or tape at any height. All steelwork is to be protected by hot-dip galvanising to BS EN ISO1461 followed by powder-coating to BS EN 6497. Net cord posts are to be formed from 100mm x 100mm powder-coated galvanised SHS.

Where posts are set in concrete foundations the dimensions of the foundations are to be in compliance with the SAPCA "Code of Practice for the Construction and Maintenance of Fencing Systems for Sports Facilities".

The posts must remain stable and no permanent distortion or tilting may occur when a force of 1kN is applied in any direction at the top of the post. This applies equally to socketed and concreted-in posts and to posts which are surface-fixed by means of base plates. Base plates are to be no more than 15mm thick to ensure that they do not project above the level of the activity surfacing. Base plate fixings are to be countersunk and are to finish flush with the top surface of the base plate. Any baseplate which is not to be surrounded by surfacing is to have bevelled and/or radiused edges and corners.

The net cord is to be suspension between the end posts. The cord is to be tensioned via a 'wind up' mechanism reel fixed to the post. Additional bottom cord edge retention brackets to be provided. All fixings, brackets and tension systems to allow the cord to be set at variable heights between 0.6m and 2.0m. Provide removable safety padding around posts to a height of 2.0m from ground level

PS 8

Net Cord

PS 08- Net cord





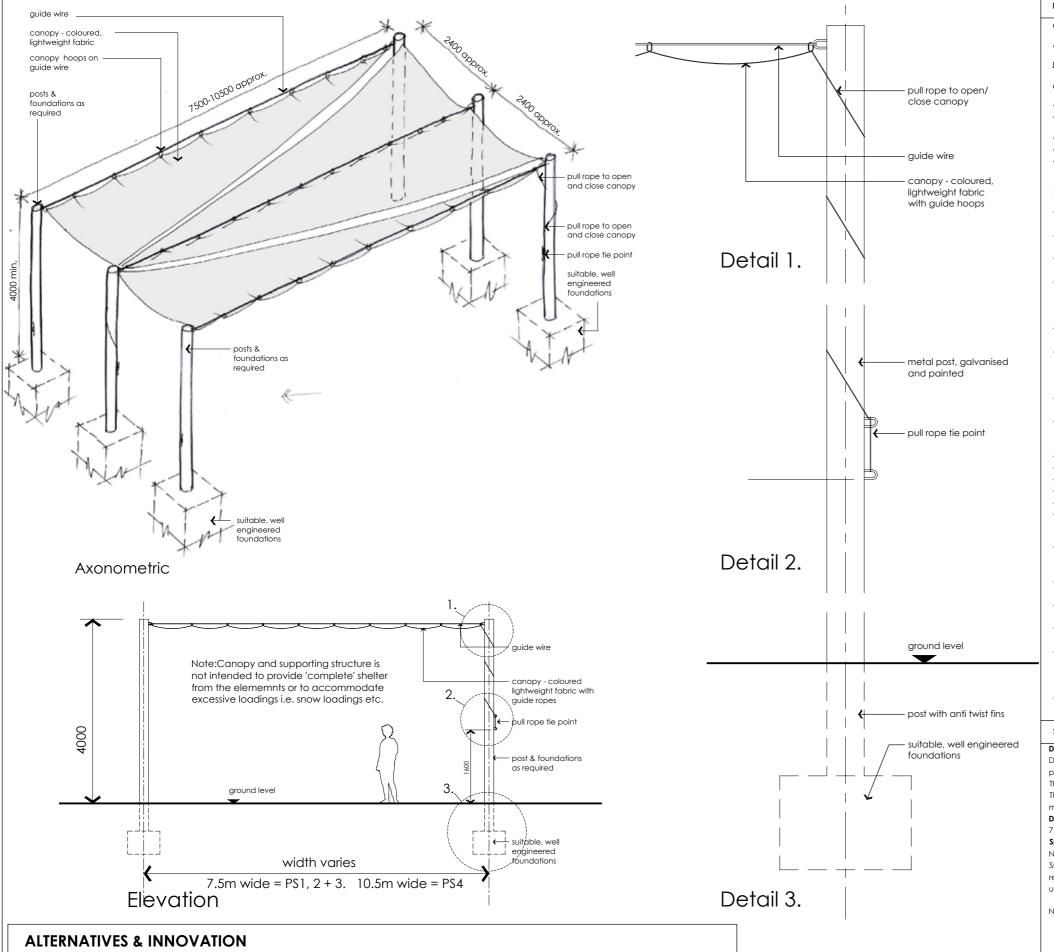






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- Timber: 10-15 years and FSC certified
- HDPE Panels: 5-10 years
- Polymeric Surfacing, markings and patterns: 5 years
- Spray and line markings:
 3 years

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SPECIFICATION

Description:

Demountable/retractable suspended fabric or netting to provide partial enclosure and cover from sunlight and rain.

The canopy is to provide an element of shelter from the weather. The canopy material should be stable under UV exposure, with a minimum life span of 15 years.

Dimensions:

7.5m - 10.5m long x 4.8m wide x 4.0m high (approx.)

Specification:

Netting / fabric suspended between powder coated metal posts. Suspension system to allow fabric to be demountable or retractable. Support post and retained fabric to allow clear uninterrupted activity area.

Notes on UV

- As a functionality to protect the textile article itself from degradation; generally achieved by the inherent characteristics of the fibre, which can be natural or an engineered quality in a synthetic fibre, attained by particular additives to the polymer such as titanium dioxide or carbon black.
- To protect a user from UV radiation; achieved through the combination of fibre selection and engineering of the fabric structure, and if higher levels of protection are required special finishes can be applied to the fabric surface.

PS 9

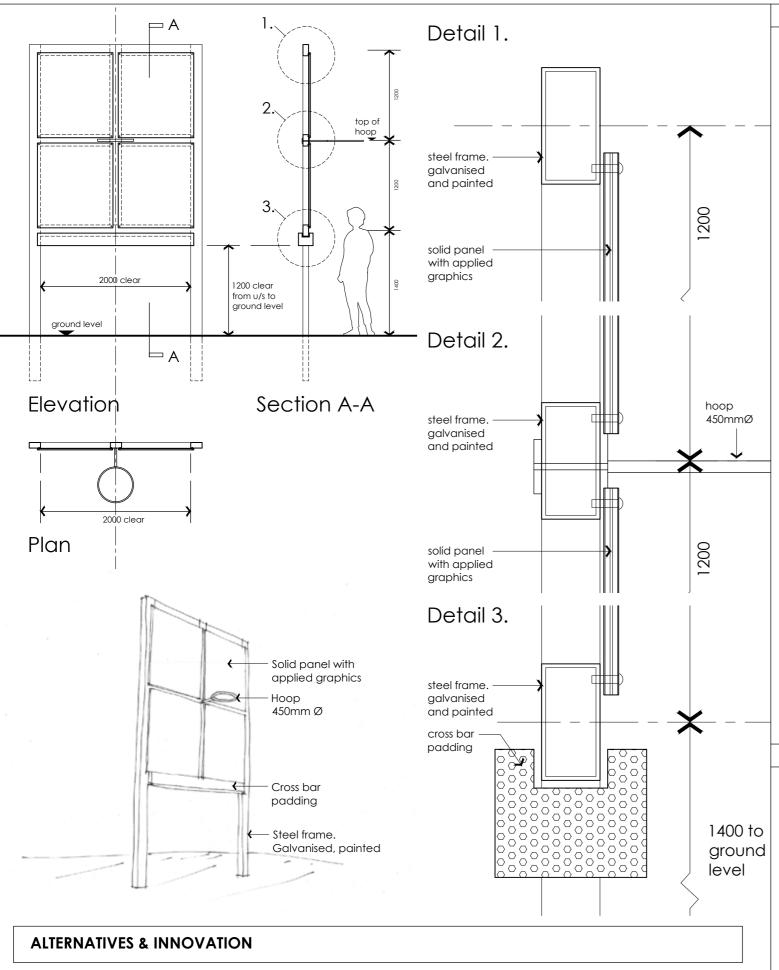
Demounbtable Cover











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- Polymeric Surfacing, markings and patterns:
 5 years
- Spray and line markings: 3 year
 Installation Minimum 1 year

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 Conduct all necessary Safety and Risk assessments and identify
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SPECIFICATION

all hazards.

Description:

Wall mounted or freestanding hoop and back panels with mini goal below.

mensions:

Main frame - 2.0m wide x 3.8m high. Mini Goal - 2.0m wide x 1.2m high (approx.)

Specification:

Powder coated metal frame. Coloured infill panels to be powder coated mesh or solid laminate (as required). Hoop to be 450mm Ø mounted centrally at 2.6m high to top of hoop. Impact padding to mini goal crossbar. Frame to be mounted on a suitable existing external wall surface or free standing. The 'multi coloured back panels' can be adapted to provide a range of targets and zones at differing heights for developing aiming and shooting skills.

Materials, performance and installation requirements

Wall-mounted version only

The weight of the wall-mounted version will be taken by baseplates. The function of the wall fixings is solely to stabilise the frame.

SPECIFICATION continued

Fixing to the wall may be;

by means of lugs welded to the frame and fixed by screws and plugs to the wall.

by through-fixing with oversized holes in the front wall of the frame. The holes in the front walls are to be plugged with plastic caps. Holes are to be made before the frame is galvanised.

Free-standing version only

The crossbar of the goal section of the frame is to be provided with padding. The padding is to have a waterproof, UV-resistant cover. The padding is to consist of an inert, closed-cell polymeric foam a minimum of 25 mm in thickness, complying with the relevant Clause of EN 913. The padding, complete with cover, is to be attached to the crossbar by means of Velcro or press-studs or similar secure but removable fastenings.

Both versions

The assembled, installed Net & Hoop must comply with the relevant Clauses of EN 1176.

All steelwork is to be protected by hot-dip galvanising to BS EN ISO1461 followed by powder-coating to BS EN 6497 In all cases, fixings must be selected to ensure that the posts remain stable and that no permanent distortion or tilting occurs when a horizontal force of 1.1kN is applied to the front of the hoop in an outward direction. This applies equally to wall-fixed apparatus (where the strength of the wall fixings must be adequate), to surface-fixed, free-standing apparatus (where the size of the base plates and the type, depth and size of ground fixings must be adequate) and to apparatus installed in below-ground foundations.

Base plates are to be no more than 15mm thick to ensure that they do not project above the level of the activity surfacing, or are to be recessed into the existing macadam surface to achieve the same end. Base plate fixings are to be countersunk and are to finish flush with the top surface of the base plate. Any baseplate which is not to be surrounded by surfacing is to have bevelled and/or radiused edges and corners.

Surface-mounted socket arrangements are not permitted. Where posts are set in concrete foundations the dimensions of the foundations are to be in compliance with the SAPCA "Code of Practice for the Construction and Maintenance of Fencing Systems for Sports Facilities".

All frame members are to be formed from powder-coated galvanised RHS of adequate size. Galvanising and powder coating are to be carried out after the fabrication of the frame.

Coloured infill panels are to be formed in exterior grade solid laminate panels of overall thickness minimum 18mm, or in weatherproofed exterior-grade laminate faced birch ply panels of overall thickness minimum 18mm. The frame is to be provided with welded-on attachment plates on all interior sides of all openings. Panels are to be fixed to the frame by means of stainless steel screws, minimum length 15mm, at a maximum spacing of 100mm, on all four sides of the panel. There is to be no discernible marking or ghosting or projection of the screws on the front surface of the panel. The colours of the panels and their markings are to be as shown elsewhere. The hoop is to be fitted on the central vertical of the frame at a height of 2.6m above the ground. Fitting may be by means of domed nuts onto studs welded in place on the frame; by means of domed nuts onto socket head screws inserted through oversized holes from the rear of the frame; or by means of countersunk screws inserted from the front of the frame into 'nutserts' or 'rivnuts'.

PS 10

Net & Hoop

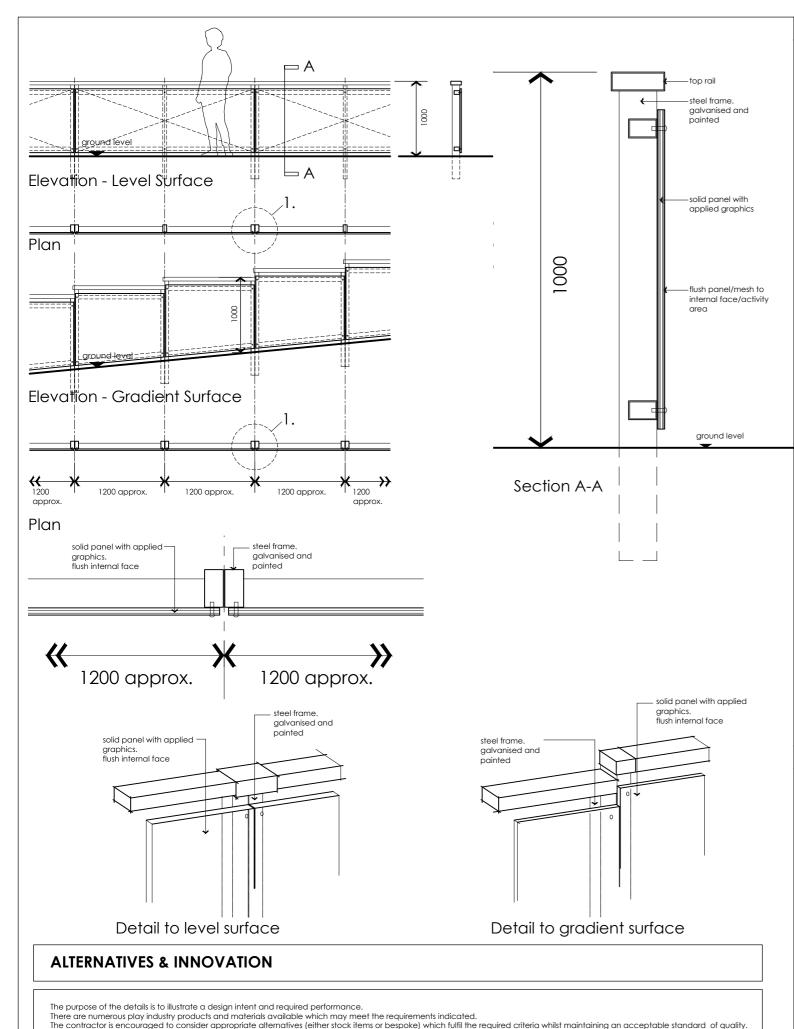












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Steel Structure:

10-15 years and FSC certified

• HDPE Panels:

Installation

 Polymeric Surfacing, markings and patterns: 5 vears · Spray and line markings: 3 years Minimum 1 year

The contractor/manufacturer/supplier should:-

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- Consult and obtain clarification/approval (where required) with all Local and Statutory Authorities. · Conduct all necessary Safety and Risk assessments and identify
- Contractors are to provide evidence that the equipment and surfacing they intend to supply meets these requirements. This evidence should be in the form of certification by an independent, ISO 17025 certified laboratory or test house.
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SPECIFICATION

Low level fencing to provide enclosure of the activity space and ball rebound surfaces.

1.0m high x perimeter distance determined by area of activity surface as required

Specification:

Powder coated metal frame intermediate posts and top rail fixed to existing surfacing. Coloured infill panels with either powder

framing or solid laminate as required. All to suit local aesthetics.

Materials, performance and installation requirements

Perimeter fencing is to consist of posts and top rail with infill panels.

Perimeter fencing is to be installed in accordance with the SAPCA "Code of Practice for the Construction and Maintenance of Fencing Systems for Sports Facilities" and is to comply with any relevant part of BS 1722. The complete installed fence is to comply with the applicable clauses of BS EN 1176 Part 1,

"Playground Equipment and Surfacing- General Safety Requirements". These clauses include, among others, requirements covering finish, entrapment, materials, strength and flammability

SPECIFICATION continued

Perimeter fences must also comply with Clause 5.5 of BS EN 15312, which covers "Multi-sports surround and ball stop

Metal components are to be corrosion resistant, either inherently or as a result of protection. Steel components (other than stainless steel) are to be hot-dip galvanised to BS EN ISO1461. All metal components (other than stainless steel) are to be powder-coated to BS EN 6497. For fixings, other treatments providing proven resistance to corrosion may be

Timber and wooden components are to comply with the safety and durability requirements of BS EN 1176. Components which are in contact with the ground shall be inherently resistant to decay or shall be treated against decay, as described in BS

Where posts are set in concrete foundations the dimensions of the foundations are to be in compliance with the SAPCA 'Code of Practice for the Construction and Maintenance of Fencing Systems for Sports Facilities".

Fences must be stable when a horizontal force of 750N/m is applied at right angles to the top rail of the fence. This applies to all fences, whether surface-fixed by means of baseplates or set in concrete foundations, and whether consisting of a straight run only or including or fixed to a return.

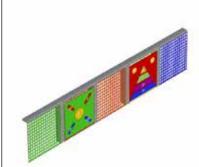
Where fence posts are surface-fixed by means of base plates, the base plates are to be no more than 15mm thick or are to be recessed into the existing ground, to ensure that they do not project above the level of the activity surfacing. Base plate fixings are to be countersunk and are to finish flush with the top surface of the base plate. Any baseplate which is not to be surrounded by surfacing is to have bevelled and/or radiused edges and corners, as required by BS EN 1176. Infill panels need to be safely and securely attached to meet

the stated requirements of BS EN 15312. Panels are to be fixed on the inner face of the barrier. There is to be no discernible marking or ghosting or projection of any screws on the front surface of a solid infill panel.

Solid, coloured infill panels are to be formed in exterior grade solid laminate panels of overall thickness minimum 18mm, or in weatherproofed exterior-grade laminate faced birch ply panels of overall thickness minimum 18mm, or in powder-coated metal mesh or perforated metal sheet. The colours of the panels and markings to be applied are to be as shown elsewhere Perforated or mesh panels are to be mounted in a full surrounding sub-frame which is to be fixed into the main frame formed by the post and rail fence. The panels themselves, the sub-frame and all fixings must comply with the entrapment requirements of BS EN 1176; this will mean that 358 mesh is unacceptable. Any wire mesh panel must be made from wire of minimum diameter 3mm. Mesh size must not exceed 50mm. Mesh panels must have full perimeter support. No cut ends, sharp edges etc. may be accessible.

PS 11 + 12

Perimeter Fence



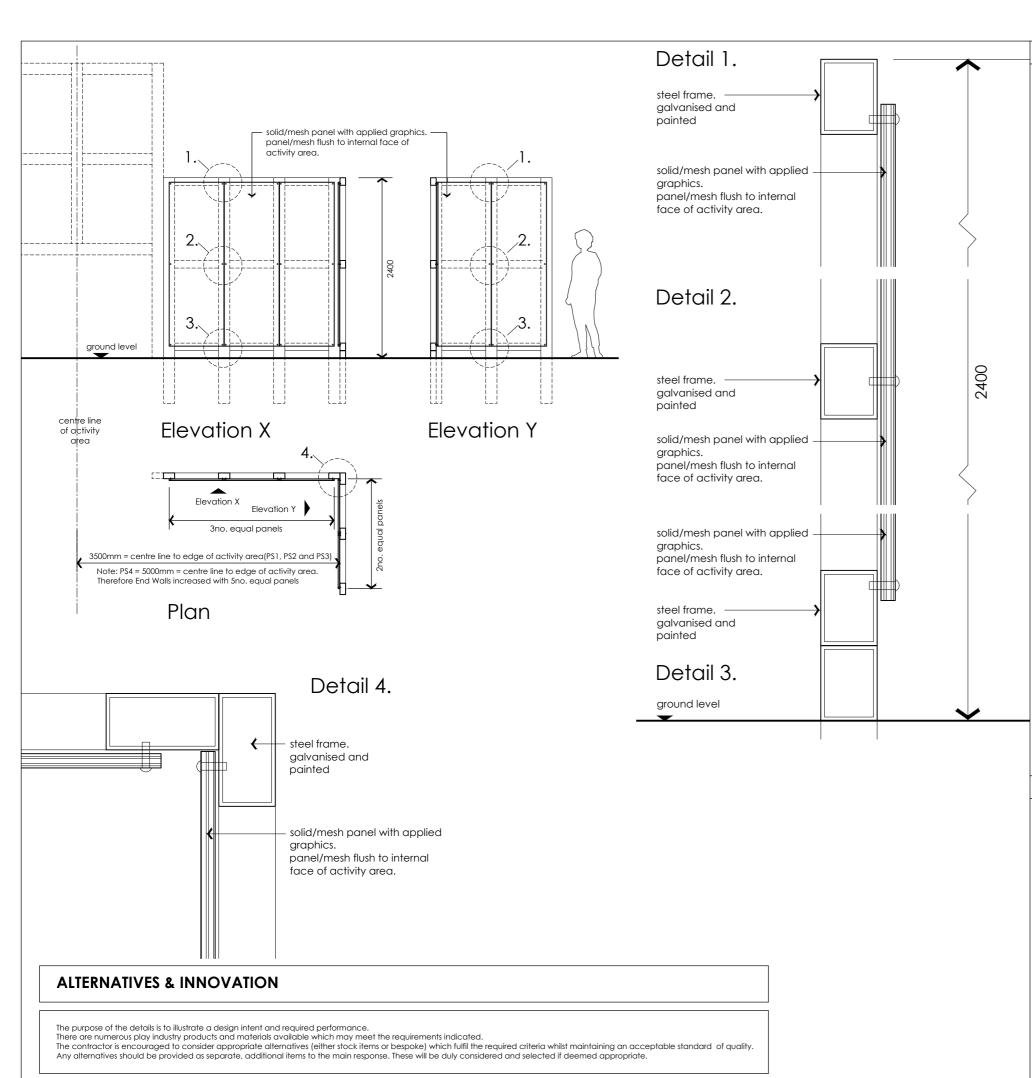












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- Spray and line markings:
 3 years

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SPECIFICATION

Description:

'L' shaped end wall providing enclosure and rebound surfaces adjacent net/hoop/mini goal. One solid laminate logo panel and one graphics panel per end wall with remaining infill options of coloured mesh.

Dimensions:

All panels 2.4m high x Overall length 4.04m (2.42m + 1.62m 'L' shape) Specification:

Powder coated metal frame fixed to existing surfacing. Coloured infill panels with either powder coated mesh or solid laminate as required.

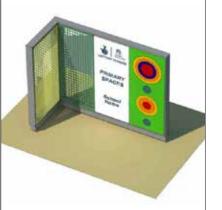
Materials, performance and installation requirements

An End Wall component is formed from three panels, each approximately 0.8m wide by 2.4m high assembled side-by-side, with a fourth panel measuring approximately 1.25m wide by 2.4m high fitted to form an 'L' shape, either left- or right-handed.

End wall panels are to be formed from steel RHS, galvanised to BS EN ISO1461 and powder-coated to BS EN 6497, with infill panels of solid laminate, laminate-faced exterior-grade birch ply or coloured mesh. Other performance and installation requirements for PS13 - End Wall are a stated for PS11 and PS12.

PS 13

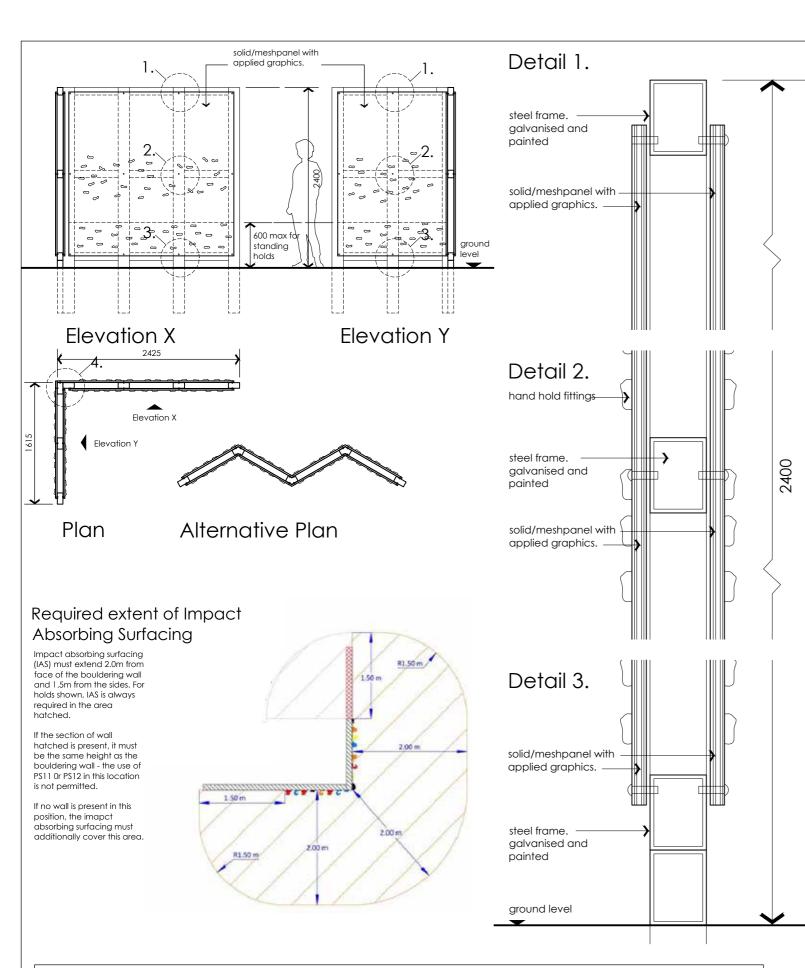
End Wall











ALTERNATIVES & INNOVATION

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 Installation Minimum 1 year

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SPECIFICATION

Description:

'L' shaped free standing wall providing vertical surface with 'bouldering' fittings attached

All panels 2.4m high x Overall length 4.04m (2.42m + 1.62m 'l' shape) approx

Powder coated metal frame fixed to existing surfacing. Coloured solid laminate infill panels with 'bouldering' foot and hand hold fittings fixed to vertical surface. Foot holds to be maximum 0.6m high from external surface.

Materials, performance and installation

The Bouldering/traversing wall consists of the same parts as PS13 - End Wall with the addition of climbing wall holds on one or more of the component panels

Requirements for materials, installation and performance of the Boulderina wall are the same as for PS13 - End Wall and PS11 - Metal Perimeter Fence, with the following additions.

Bouldering Walls shall comply with BS EN 12572 Part 2. Holds shall comply with BS EN 12572 Part 3. The disposition of hand holds shall allow for use of the wall by children whose height is in the range 1.01m to 1.58m

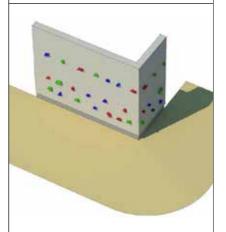
The height of any hold intended for standing on shall be less than 600mm above the adjacent finished surface.

Notwithstanding the requirements of BS EN 12572 Part 2 and BS EN 1176, the impact absorbing surfacing shall extend a minimum 2m from the face of a panel fitted with climbing holds and shall extend for a minimum of 1.5m at each side or end of such a panel. The required extent is indicated in the diagram opposite. The Critical Height of the surfacing installed over this area shall be a minimum of 750mm

Where a panel adjoins a panel fitted with bouldering holds it shall be a full-height panel.

PS 14

Bouldering Wall

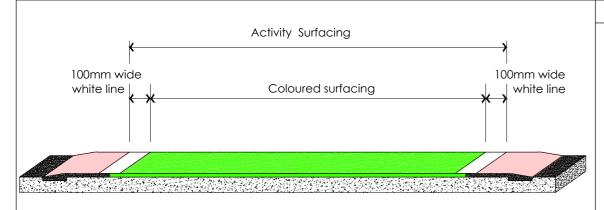




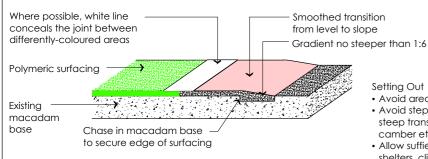
PrimarySpaces







Typical Track Section



Polymeric Surfacing Edge Detail

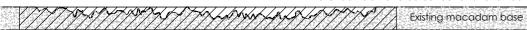
Settina Out

- Avoid areas where macadam is unsound.
- · Avoid steps and other changes in level, steep transverse gradients, adverse camber etc.
- Allow suffienct distance to doorways, shelters, climbing frames, swings and other equipment. Refer to BS 5696.
- · Avoid crossing or connecting to other markings.
- Avoid tight bends.
- Route to be clear of any trees to avoid slipperv surface due to leaf fall.

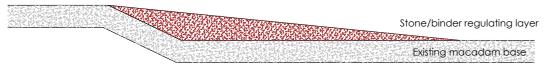
Methods of correcting faults in the existing macadam surface

Areas of serious fretting or break-up - where more than one third of the thickness of the wearing course has been lost - shall be broken out and replaced with open-textured macadam or, if the area is small, with resin-bound 3 to 10mm limestone or granite chippings.

Hatched volume to be cut out and renewed



Correction of significant irregularities in the existing surface may be carried out using resin-bound 2-5mm gravel or aggregate. Breaking out and resurfacing with new wearing course material would be an acceptable alternative.



Where minor irregularities are to be corrected, this may be carried out by increasing the thickness of the polymeric surfacing, provided the thickness does not exceed 25mm at any point.

> Polymeric surfacina Existing macadam base

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- HDPF Panels: 5-10 years
- Polymeric Surfacing, markings and patterns:
- · Spray and line markings:
- Installation Minimum 1 yea

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SPECIFICATION

Description

Surfacing provided to match and supplement the main activity area.

Surface area is variable dependent on available playground space.

Specification:

Synthetic Polymeric material (available in various colours) applied to existing playground surfacina, Surface markinas / coloured areas as required.

Existing Site

Synthetic surfacing is to be installed directly onto the existing macadam of the school playground.

Note that where there are changes in surfacing type within a single area, there exists the possibility of trips at edges and joints. There may also be differences in slip resistance between the types of surface. These differences, if excessive, can cause slipping accidents even when the greas individually have satoisfactory slip resistance. The route of an Activity Track is to be defined by the Applicant. The Contractor is responsible for checking the route to ensure that it involves no awkward or unacceptable changes in longitudinal or transverse gradient or excessive changes in level, steps etc. Acceptable procedures for the preparation of the site are described below. If the condition of the existing macadam is too poor to permit the installation of surfacing without more drastic remedial work the Contractor may suggest a more appropriate route for the trail.

The Contractor is required to provide a 5-year Warranty on the slip resistance and durability of the surfacing and its adhesion to the substrate

SPECIFICATION continued

rials, performance and installation requirements

comply with BS7188 in all cases.
The surfacing shall be based on red / blue / green / yellow / orange / beige EPDM granule. The granule size shall be 1 to 4 mm. Binder content shall be no less than 18%.

On flat and level areas, surface regularity shall be such that there is no deviation exceeding 6mm beneath a 3m

On any area where measurement with a 3m straightedge is impossible or impracticable (for instance where the extent of an area is less than 3m, where equipment would prevent the use of a 3m straightedge, or where the contours of the ground are not flat) surface regularity shall be such that there is no deviation exceeding 3mm beneath a 1m straightedge no deviation exceeding 2mm beneath a 0.3m straightedge. The surface finish shall in all cases be smooth

Sile preparation
Mocadam areas are to be cleaned with a vacuum sweeping machine to remove all mud, litter, moss, loose debris,
loosely-bound aggregate etc.

If there is evidence of ponding, affected areas are to be pierced with 25mm holes on 700mm centres, to a depth of no
less than 450 mm. No drilling shall be carried out without first sweeping for buried services. The responsibility for rectifying
any damage to underground services of any type lies with the contractor.

If there is evidence of serious fretting or break-up of macadam the affected area shall be broken out and replaced with
open-textured macadam or, if the area is small, with resin-bound 3 to 10mm limestone or grantle chippings. Serious
fretting or break-up is considered to have occurred where more than one third of the thickness of the most recently
installed wearing ourse has been lost. nstalled wearing course has been lost.

Where correction of significant irregularities in the existing surface is required, it may be carried out using resin-bound 2-5mm gravel or aggregate. For large areas it may be more economical to break out and resurface with new wearing Where minor irregularities are to be corrected the corrections may be carried out by increasing the thickness of the

Where minor irregularities are to be corrected the corrections may be carried out by increasing the thickness of the polymeric surfacine, provided the thickness does not exceed 25mm at any point. With 2-5mm aggregates the minimum binderaggregate ratio shall be at least 11 per 10kg. A sprayed application of binder is to be applied to friable areas of macadam, after they have been cleaned. Application is to be at a rate of no less than 11 of binder pers, a. m, the volume of binder to be measured before any dilution required to allow if to be sprayed.

All areas of macadam to receive surfacing shall be primed with a suitable binder, as recommended by the manufacturer of the binder explosed.

of the binder employed in the surfacing, applied at the rate recommended by the primer supplier.

Where the surfacing finishes beneath a fence or other panel, its edge may stop square. Where the edge of the surfacing is exposed to wear or could potentially cause tripping a chase at least 15mm deep by 100 mm wide is to be cut in the macadam surface. The edge of the surfacing is to be formed into the chase, giving a smooth transition from surfacing

Installation of surfacina

level to surrounding ground level with a gradient no steeper than 1:6.

Surfacing shall be installed on primed re hours of the application of the primer.

All surfacing must be properly cured and ready for use on the next school day after installation. For instance, surfacing should therefore be installed on a Sunday only if the contractor is certain that it will be fully cured by 7.00 am on the

necessaries of polymeric surfacing are laid more than 4 hours apart, or if any rain, dew, or other moisture falls the first area of surfacing before the second is laid, a primer shall be applied to the edge of the first area of surfacing fore the second area is laid. This applies whether the two areas of surfacing are of the same or different colours. Exposed joints between contiguous differently-coloured areas of polymeric surfacing shall be made tidily and in smoott

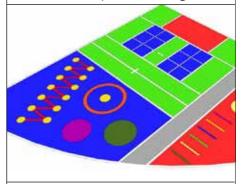
Where white lines are applied to the surfacing they are to be 50mm wide and are to be marked straight or to accurate Where white lines are applied to the surfacing they are to be 50mm wide and are to be marked straight or to accurate radii, as required. Where while lines separate areas of different colours the junction between the colours shall be located so that the white line will cover the junction. Colours changes shall not be visible through white lines. If perceptible ghosting is present an additional coat of white point shall be applied.

Where any access cover is present in the area to be covered by surfacing its location shall be marked during installation, for instance by insertion of metal pins or similar at the comers of the cover. When the surfacing is fully cured the surfacing shall be cut to allow removal of the cover. Hinged covers may require different treatment. Any key holes or similar must

be cut out to allow the use of the appropriate lifters. Before leaving site the contractor shall demonstrate that all covers

PS 15

Activity Surfacing











	NET HOOP	END WALL	FENCE PANEL	FLOOR MARKINGS
TARGET	N / A	PS 10 PS 10 PS 10 PS 10 EW05-A EW05-B	PS 11-12 FNA01 PS 11-12 FNA02	FM03 FM05
JUMP	N / A	PS 10 PS 10 EW10 EW11	N / A	5 4 3 3 4 3 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1
LANDSCAPE	PS 10 NH07	PS 10 EW08	N / A	N / A
SHAPES	PS 10 NH04 NH04 PS 10 NH05	N/A	PS 11-12 PS 11-12 PS 11-12 FNB06 FNB07 FNB08	N / A
NUMBERS	PS 10 NH08 PS 10 NH08	N/A	PS 11-12 PS 11-12 PS 11-12 FNB09 FNB10 FNB11	N/A
LETTERS	PS 10 PS 10 NH02 PS 10 NH09	N/A	PS 11-12 PS 11-12 PS 11-12 FNB12 FNB13 FNB14	N/A
BRANDING + DRY WIPE	N/A	PS 10 PS 10 EW13	N/A	N / A

ALTERNATIVES & INNOVATION

The purpose of the details is to illustrate a design intent and required performance.

There are numerous play industry products and materials available which may meet the requirements indicated.

The contractor is encouraged to consider appropriate alternatives (either stock items or bespoke) which fulfil the required criteria whilst maintaining an acceptable standard of quality.

Any alternatives should be provided as separate, additional items to the main response. These will be duly considered and selected if deemed appropriate.

Refer to supplimentry sheets for panel details and worked examples.

NOTES

QUERIES AND RESPONSES

All queries and responses must be submitted in writing to:-

primaryspaces@gleeds.co.uk

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- All dimensions and levels are to be checked on site.
- Any discrepancies are to be reported to the Programme Project Manager before any work commences.
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STANDARD REQUIREMENTS

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- Refer to all associated project documentation, with particular reference to 'roles and responsibilities'.
 Tenderers/contractors should refer back to the Programme
- Project Managers for clarification on any points

 The contractor is responsible for recognition of general site conditions, all site surveys, supply/procurement, delivery, preparation, assembly/installation, commissioning, handover, Health and Safety of all elements related to the project.
- All details / data should be considered as minimum requirements and or standards.
- All equipment is to comply with the requirements of BS EN 1176, BS EN 1177, BS EN 7188, BS EN 12572, BS EN 15312 and additionally with such other standardsand specifications as are indicated at appropriate points in this document.
- All elements / components to have suitable, well engineered foundations where required.
- Guarantees and warranties on equipment and structures, panels, materials, surfacing, line markings and patterns should be a minimum of:-

• Steel Structure: 10-15 years

Timber: 10-15 years and FSC certified

• HDPE Panels: 5-10 years

Polymeric Surfacing, markings and patterns:
Spray and line markings:
3 years

The contractor/manufacturer/supplier should:-

- Source ex-stock components and materials wherever possible.
 Otherwise simple adaptation of supply chain components is acceptable.
- Comply with all relevant British and European Standards and Codes of Practice.
- Consult and obtain clarification/approval (where required) with all Local and Statutory Authorities.
- Conduct all necessary Safety and Risk assessments and identify all hazards.
- Contractors are to provide evidence that the equipment and surfacing they intend to supply meets these requirements. This evidence should be in the form of certification by an independent, ISO 17025 certified laboratory or test house.
- In addition, the supplier/contractor will be required to provide the school/LEA with safety certification

PS16



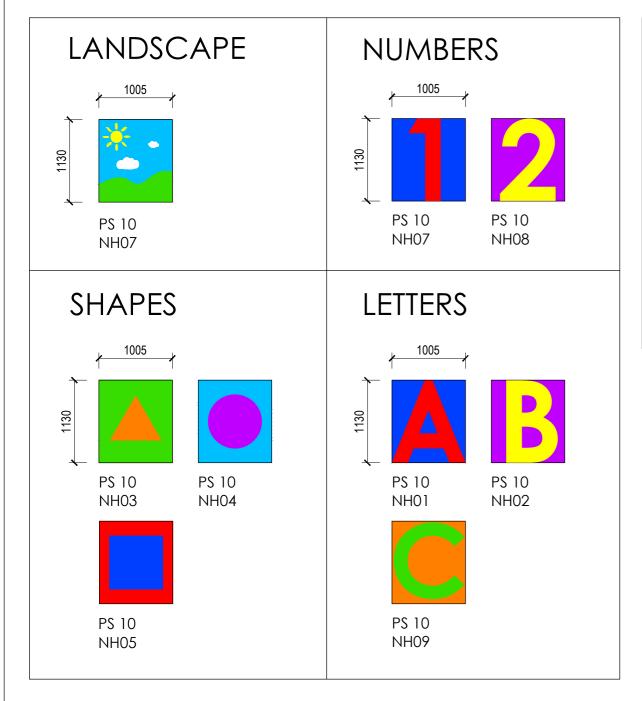


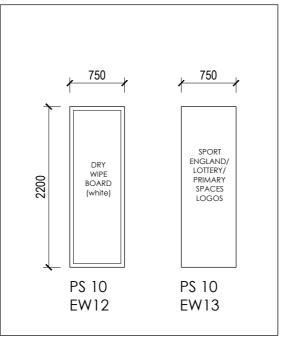




NET HOOP PANELS

BRANDING + DRY WIPE





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• HDPE Panels: 5-10 years

 Polymeric Surfacing, markings and patterns: 5 years

· Spray and line markings: 3 vears

The contractor/manufacturer/supplier should:-

Installation Minimum 1 year

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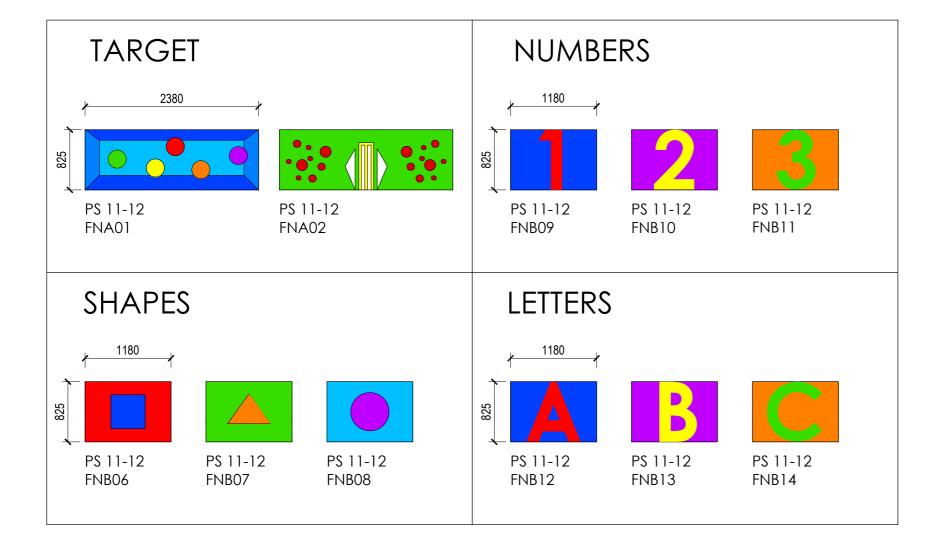








FENCE PANELS



ALTERNATIVES & INNOVATION

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Minimum 1 year Installation

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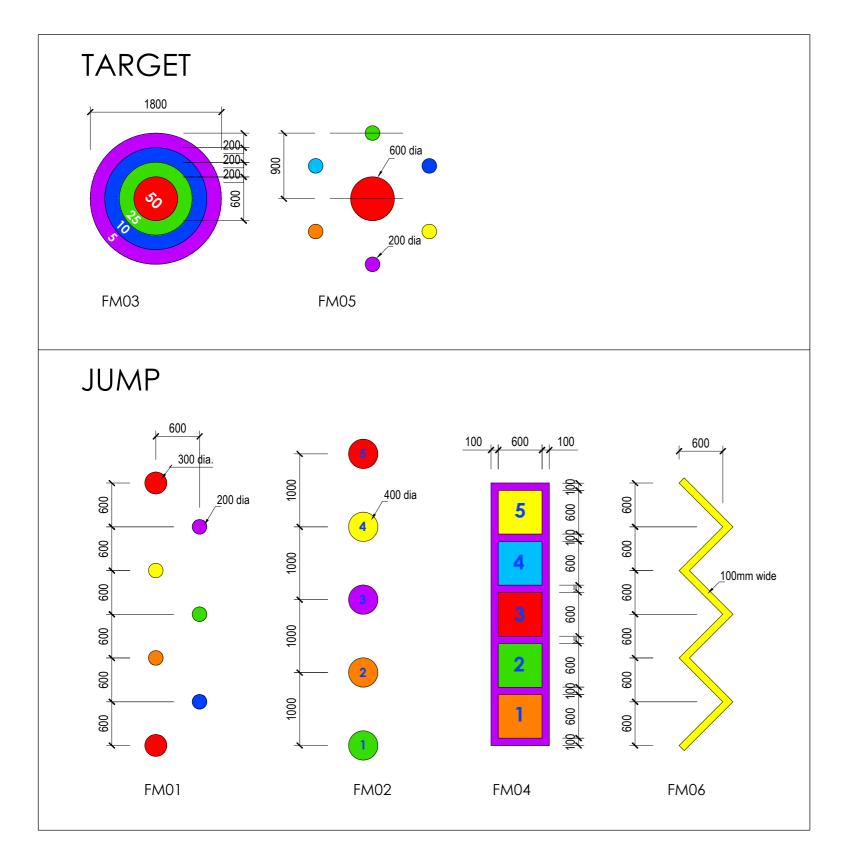








FLOOR MARKINGS



ALTERNATIVES & INNOVATION

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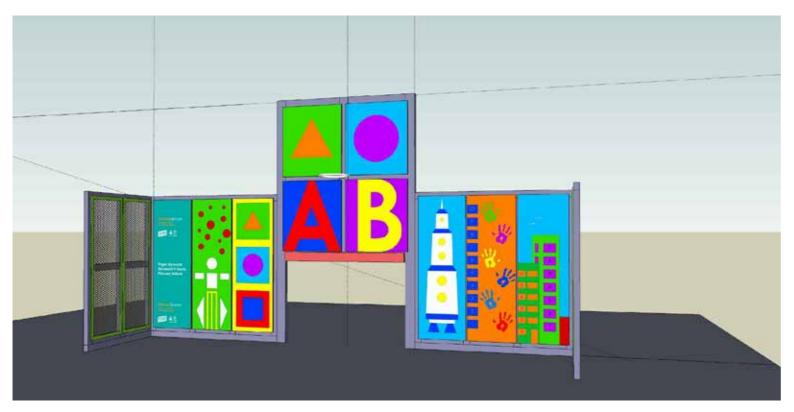














Examples illustrating the graphics panel options applied to PS10-Net Hoop and PS13-End Wall

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PS16











PrimarySpaces

Improving outdoor PE and sport facilities

For more information

Primary Spaces Programme Manager Gleeds Advisory Ltd Wilford House 1 Clifton Lane Wilford Nottingham NG11 7AT

E: primaryspaces@gleeds.co.uk





