Output Specification

Technical Annex 2B: External Space and Grounds

May 2019 Update
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Summary

This document is one of a number of Technical Annexes which form part of the Generic Design Brief (GDB).

Review date

The next planned review date for this document is November 2020.

Who is this publication for?

This document is for technical professionals involved in the design and construction of school premises, to use as part of the Employer’s Requirements of the DfE Construction Framework. It may also be used as the basis of similar documentation for other procurement routes using the Output Specification.

Document Updates

- **Version 9:** September 2020 – Accessibility amends – Tables have been altered to ensure there are no merged cells. Paragraph numbering has also been updated.
- **Version 8:** May 2019 – Revised to incorporate end user feedback, evidence collected and updates to applicable standards.
- **Version 7:** September 2017 - Issued as OS 2017
- **Versions 1-6:** July 2016 – November 2017 - Includes initial working towards OS 2017
1. Introduction

1.1. Overview

1.1.1. This document is one of a number of Technical Annexes which form part of the Generic Design Brief (GDB). It sets out the required technical standards and performance criteria for external space and grounds in schools and should be read in conjunction with Sections 2.2 and 2.4 of the GDB, as well as the School - Specific Brief (SSB), including the School-Specific Schedule of Accommodation (SoA), Area Data Sheets (ADS) and, where relevant, the Refurbishment Scope of Works (RSoW). The definitions in paragraph 1.3 of the GDB apply to this Technical Annex and all other parts of the OS.

1.1.2. The information exchange required at each stage of the procurement process is detailed in the Employer’s Requirements Deliverables.

1.1.3. The requirements and specifications in this Technical Annex, in respect of the external spaces and grounds:

a) shall always apply to the external areas adjacent to any New or Refurbished Building(s) which are required for access, or which are affected or removed due to the proposed Works, including any informal and social area adjacent to Early Years or Primary School classrooms

b) shall not apply to existing grounds within the Site except for any part that is specifically described in the SSB, or in a Whole School Project

c) shall apply to all parts of the Site where designated a Whole School Project in the SSB

d) shall not apply to existing grounds beyond the Site except for any part that is specifically described in the SSB (for instance for consequential work)

1.1.4. The categories and the types of external space described in this document reflect those in BB103 ‘Area guidelines for mainstream schools’ and BB104 ‘Area guidelines for SEND and alternative provision’:

a) soft and hard outdoor PE (part of the Net Site Area)

b) soft and hard informal and social area (part of the Net Site Area)

c) habitat areas (part of the Net Site Area)
d) non-net areas (all parts of the Non-net Site Area except the footprint of Buildings, but not including routes within the Net Site Area such as footpaths through informal and social areas)

2. General Requirements

2.1. Overview

2.1.1. The Contractor shall provide the external space and fencing required in the GDB and in the SSB. The Contractor shall meet the Minimum Life Expectancy requirements set out in the GDB, Section 2.4 External Space and Grounds, Table 3. Any external space or facility provided shall also meet the requirements identified in this Technical Annex.

2.1.2. The Contractor shall ensure that any materials or finishes used in external spaces:

   a) are selected with due regard to their suitability for purpose and performance, durability, ease of cleaning, maintenance and repair, resistance to accidental or malicious damage and to their environmental impact

   b) take account of any planning conditions

   c) are sufficiently robust to stand up well to heavy use typical of a school and prevailing weather conditions

2.1.3. The Contractor shall ensure that any landscaping included in the Works and any new or replacement outbuildings meet the requirements of Section 6.3 and any new or replacement fencing meets the requirements of Section 8.

2.2. Refurbishment of External Space and Grounds

2.2.1. Any work required to Refurbished Buildings shall be as defined in the RSoW, under the headings of architectural elements (including FF&E) and M&E elements (including ICT Infrastructure). These headings include external spaces adjacent to building(s), including hard paved area, mains services and drainage plant, which will be categorised as Renewed, Replaced, Repaired, Retained or have ‘no work’.

   a) Any Renewed external space or grounds shall be designed to satisfy the relevant outputs of the GDB as well as this Technical Annex.
b) Any **Replaced** external space or grounds shall satisfy the relevant outputs of the GDB as well as this Technical Annex, as far as possible within the constraints of the location, the adjacent elements and the sub-structure.

c) Any **Repaired** external space or grounds shall comply with the specifications in any project-specific specification or drawing issued as part of the SSB, and the overall performance after repair shall be at least as good as that of the existing provision.

d) Any **Retained** external space or grounds shall be left as existing, with minimal work required unless needed in order to complete other Works that form part of the project, and the overall performance shall be no worse than the existing performance.

e) Any element requiring **No work** shall be left as existing.

2.2.2. Any external space or grounds on the Site not identified in the SSB shall be deemed to require ‘no work’, as described above.

2.2.3. Subject to paragraph 1.1.3 in this Technical Annex and Section 1.5 in the GDB, in respect of external space adjacent to Refurbished Buildings, for instance for access, the required level of compliance with this Technical Annex is set out in the RSoW.

2.2.4. The requirements in this Technical Annex refer to all parts of the Works, as set out in the SSB, except any external space and grounds that are designated Repaired, Retained or ‘no work’ in the RSoW.

3. **Outdoor Physical Education (PE)**

3.1. **Overview**

3.1.1. The sizes of any sports pitches and courts provided shall:

   a) meet the School’s PE and sports requirements set out in the SSB

   b) have surfaces that are level, drain well and have an even surface free of obstructions with no ponding or static water

3.1.2. The overall area of the outdoor PE spaces is as defined as the ‘playing fields land’ in Section 77 of the School Standards and Framework Act 1998, and as described in BB103. The area of all-weather pitches (AWPs), as defined in Table 1, can be counted twice for the purposes of both Section 77, BB103 and BB104, as they can
be used for significantly more than the seven hours a week assumed of grass pitches.

3.1.3. Any requirements for floodlighting to all-weather pitches or multi-use games areas (MUGAs) that are to be used outside the school day, under a formal Community Use agreement, shall be as noted in the SSB.

3.2. Soft Outdoor PE

3.2.1. Soft outdoor PE area can include multi-purpose grassed areas suitable for PE, or areas with artificial all-weather surfaces, such as synthetic turf. Where provided, these areas shall meet the requirements in Table 1.

3.2.2. The Contractor shall ensure that any soft outdoor PE area provided shall have:

a) a gradient (a uniform fall of about 1:100 is the requirement, but an even fall of up to 1:80 is allowable along the line of play, or up to 1:40 if it is across the line of play)

b) sufficient pitch margins and run-offs which may overlap for the same type of pitch, but overlap between heavily used winter pitch areas (e.g. goal mouths) and heavily used summer pitch areas (e.g. cricket squares or athletics track) shall be avoided

c) reasonable orientation of pitches (an approximately north-south direction is desirable for most games)

d) dimensions, surfaces and markings as recommended for ‘Community’ use in Sport England guidance ‘Comparative Sizes of Sports Pitches & Courts (OUTDOOR)’, ‘Natural Turf for Sport’ and ‘Artificial Surfaces for Outdoor Sport’ (restricted sites may follow the Sport England design guidance on ‘Compact Athletics Facilities’)

3.3. Hard Outdoor PE

3.3.1. Hard outdoor PE area can include hard-surfaced MUGAs, and other hard- surfaced areas such as bike trails. Surface materials include tarmac or polymeric surfaces, e.g. rubber crumb, or other materials. Where provided, these areas shall meet the requirements in Table 2.

3.3.2. The surfaces of any hard-outdoor PE area provided shall be designed in accordance with Sport England ‘Artificial Surfaces for Outdoor Sport’. Courts shall be defined with thermoplastic line markings.
### Table 1: Requirements for Soft Outdoor PE

<table>
<thead>
<tr>
<th>Space Type</th>
<th>Description and range of activities</th>
<th>Access</th>
<th>Surface</th>
<th>Fencing</th>
<th>Servicing and other requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>XTW10 General grass areas for multi-purpose PE use</td>
<td>External grass sports pitches for winter overlapping with summer team games and athletics. Winter games include football, hockey, lacrosse, rugby. Summer games include cricket, softball and general athletics</td>
<td>Disabled access to the spectator areas as a minimum. Access to other areas e.g. javelin, shot-put, tennis, as described in the SSB</td>
<td>In accordance with Sport England guidance ‘Natural Turf for Sport, 2011’</td>
<td>Not required</td>
<td>Allow for appropriate markings, margins and run-off for the activities and age range required</td>
</tr>
<tr>
<td>XTP15 All-weather pitch</td>
<td>External pitch for all year round use for team games</td>
<td>Disabled access required</td>
<td>Multi-purpose synthetic turf (sand-filled, sand dressed or a needle-punch carpet) with a shock pad to comply with Sport England ‘Artificial Surfaces for Outdoor Sport’</td>
<td>3m min high fencing to all sides</td>
<td>Allow for appropriate markings, margins and run-off for the layout for hockey, football and five-a-side football or the range of sports identified in the SSB, in line with Sport England guidelines,</td>
</tr>
<tr>
<td>XTP20 Permanent cricket square</td>
<td>External PE area for teaching and playing cricket</td>
<td>Disabled access to the spectator area as a minimum</td>
<td>In accordance with Sport England guidance ‘Natural Turf for Sport, 2011’ and BS 7370-4</td>
<td>Not required</td>
<td>Dimensions to allow for appropriate markings, margins and run-off for sports and age range required, not to overlap with other pitch areas</td>
</tr>
<tr>
<td>Space Type</td>
<td>Description and range of activities</td>
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<td>Fencing</td>
<td>Servicing and other requirements</td>
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<tr>
<td>XTP30 Permanent grass for athletics-only areas</td>
<td>External grass PE areas for athletics only</td>
<td>Disabled access to the spectator area as a minimum and selected activity areas e.g. javelin, shot-put, as described in the SSB</td>
<td>In accordance with Sport England guidance ‘Natural Turf for Sport, 2011’ and BS 7370-4</td>
<td>Not required</td>
<td>Dimensions to allow for appropriate markings, margins and run-off for sports and age range required, not to overlap with other sports or pitch areas</td>
</tr>
<tr>
<td>XTP25 Permanent synthetic sports area for cricket</td>
<td>External PE area for teaching and cricket (playing and practice)</td>
<td>Disabled access to the spectator area as a minimum</td>
<td>Synthetic turf or polymeric surfaces, to allow more intensive use than grass. To conform to Sport England guidance note: ‘Artificial Surfaces for Outdoor Sport’</td>
<td>Not required</td>
<td>Not to overlap with other sports or pitch areas. Areas for throwing practice should include permanent or ‘wheelaway’ cricket practice cage and roof netting</td>
</tr>
<tr>
<td>Space Type</td>
<td>Description and range of activities</td>
<td>Access</td>
<td>Surface</td>
<td>Fencing</td>
<td>Servicing and other requirements</td>
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<tr>
<td>XTP35 XTP40</td>
<td>Permanent synthetic sports area for athletics only</td>
<td>Disabled access to the spectator area as a minimum and selected activity areas e.g. javelin, shot-put, as described in the SSB</td>
<td>Synthetic turf or polymeric surfaces, to allow more intensive use than grass. To conform to Sport England guidance note: ‘Artificial Surfaces for Outdoor Sport’</td>
<td>Not required</td>
<td>Areas for throwing practice should include permanent or ‘wheelaway’ cage &amp; roof netting appropriate for the range of sports undertaken e.g. shot-put, discus, and as described in the SSB</td>
</tr>
<tr>
<td>XTP40 XTP50</td>
<td>External PE area for a range of outdoor exercise activities with some use of equipment</td>
<td>Disabled access to the spectator area. Full disabled access where there is specialist equipment listed in the SSB</td>
<td>Various soft surfaces including grass, timber, bark, etc. Must be level, on a firm base, drain well with no ponding or static water and have an even surface free of obstructions</td>
<td>Fencing or border maybe required where identified in the SSB</td>
<td>Containment of loose surface material where adjacent to hard play surfaces</td>
</tr>
<tr>
<td>XTP50 XTP35</td>
<td>External PE area for cycling</td>
<td>Disabled access to the spectator area</td>
<td>Surface material as described in the SSB. Must drain well and have an even surface free of obstructions</td>
<td>Not required</td>
<td>May be part of hard PE area calculation</td>
</tr>
<tr>
<td>Space type</td>
<td>Description and range of activities</td>
<td>Access</td>
<td>Surface</td>
<td>Fencing</td>
<td>Servicing and other requirements</td>
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<tr>
<td>XTC10 Multi-use games area (MUGA)</td>
<td>Marked out hard surfaced courts for a variety of formal PE and sports activities</td>
<td>Full disabled access</td>
<td>Open textured porous macadam. To conform to Sport England guidance note: ‘Artificial Surfaces for Outdoor Sport’. Allow markings for the range of sports identified in the SSB</td>
<td>To be fenced on all sides to min. 3m with gates to suit access and evacuation</td>
<td>N/A</td>
</tr>
<tr>
<td>XTC20 Hard surfaced games courts - Secondary</td>
<td>Marked out for formal sports activities such as mini-tennis, netball, and basketball for Secondary Schools</td>
<td>Full disabled access</td>
<td>Open textured porous macadam. To conform to Sport England guidance note: ‘Artificial Surfaces for Outdoor Sport’. Allow markings for the range of sports identified in the SSB</td>
<td>To be fenced on all sides to min. 3m high with gates to suit access and evacuation</td>
<td>N/A</td>
</tr>
<tr>
<td>XTC30 Hard surfaced games courts - Primary</td>
<td>Marked out for formal sports activities such as mini-tennis, netball, and basketball for Primary Schools</td>
<td>Full disabled access</td>
<td>Open textured porous macadam. To conform to Sport England guidance note: ‘Artificial Surfaces for Outdoor Sport’. Allow markings for the range of sports identified in the SSB</td>
<td>Fencing not required except to protect windows or against significant changes in ground levels</td>
<td>N/A</td>
</tr>
</tbody>
</table>
4. Soft and Hard Informal and Social Areas

4.1. Overview

4.1.1. Any hard or soft informal and social areas shall comply with the requirements in Table 3.

4.1.2. Any informal and social areas provided shall:

   a) be at a safe distance from windows and avoid low level trip hazards and physical barriers such as external fire escapes in accordance with AD K

   b) drain well with no ponding or standing water and have an even surface, free of obstructions

   c) be level, with the exception of any isolated play mounds which shall be at a height agreed with the Employer and smooth contoured with a maximum gradient of 1 in 3 and edges flush with surrounding surfaces

4.1.3. Any new or relocated play equipment shall be on surfacing which is suitable for the equipment being used and which provides a safe environment for pupils which adheres to BS EN1176 ‘Playground equipment and surfacing General safety requirements and test methods’ and ‘BS EN1177 Impact attenuating playground surfacing. Determination of critical fall height’.

4.1.4. Any Early Years Outdoor Play area provided shall provide a minimum of 1m² per FTE Early Years pupil place and shall be directly outside Early Years classrooms.

4.1.5. Any Early Years Outdoor Play area provided shall have an external canopy which shall:

   a) provide at least 0.5m² per FTE Early Years pupil place and be at least 2.4m wide

   b) have a structure that is robust and corrosion resistant, and able to resist dead, live, wind and snow loads relevant to its location

   c) be adjacent to the classroom and designed so as not to obstruct the Building’s method of ventilation and daylight design

   d) have a roof that is robust, transparent and resistant to UV degradation, thermal creep and sun bleaching as well as protecting pupils from UV light

   e) collect rainwater and connect into a surface water drainage system

   f) include lightning protection, if required following an assessment by the Contractor
Table 3: Requirements for Informal and Social Areas

<table>
<thead>
<tr>
<th>Space Type</th>
<th>Description and range of activities</th>
<th>Access</th>
<th>Surface</th>
<th>Fencing</th>
<th>Servicing and other requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>XIS10 Soft informal and social area</td>
<td>External areas for various informal and social activities, both quiet and active</td>
<td>Full disabled access except where a steep gradient is an integral part of a play feature</td>
<td>Diverse and attractive soft surfaces including grass, timber, bark, bound gravel, robust enough to allow for substantial use. Gradient to allow maintenance</td>
<td>Not required unless to define an area and described in the SSB</td>
<td>Loose surface material e.g. bark must be in a defined and bordered area to avoid material being blown or kicked over adjacent surfaces</td>
</tr>
<tr>
<td>XIS20 Main hard informal and social space</td>
<td>External area for formal and informal play, recreational sports and social activities</td>
<td>Full disabled access</td>
<td>Various hard surfaces typically macadam, with an even surface and appropriate play markings as described in the SSB</td>
<td>Fencing not required except to protect windows or against significant changes in ground levels</td>
<td>Early Years Outdoor Play to be fenced from other play areas. Arrangement of gates and access control as described in the SSB</td>
</tr>
<tr>
<td>XIS30 External dining</td>
<td>External area for outdoor dining and other informal and social activities</td>
<td>Full disabled access</td>
<td>Various hard surfaces e.g. macadam, flag or block paving with no changes of level</td>
<td>Not required</td>
<td>Canopies (where provided) to be relocated or provided by the School as described in the SSB. Appropriate footings, drain connections and gullies for canopies; secure, tamperproof and adult height waterproof electrical outlets designed for external use where described in the SSB</td>
</tr>
<tr>
<td>Space Type</td>
<td>Description and range of activities</td>
<td>Access</td>
<td>Surface</td>
<td>Fencing</td>
<td>Servicing and other requirements</td>
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<tr>
<td>XIS40 Early Years Outdoor Play</td>
<td>Covered external area for learning and play and dining outside Early Years classrooms</td>
<td>To be directly accessed from nursery and reception classrooms</td>
<td>Various hard surfaces typically macadam, with even surfaces with no abrupt changes of level and appropriately drained</td>
<td>To be fenced and gated to control access</td>
<td>Appropriate footings and drain connections (no surface discharge to gullies) for canopies; secure, tamperproof water outlets and adult height electrical outlets. One each per classroom</td>
</tr>
<tr>
<td>Space Type</td>
<td>Description and range of activities</td>
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<tr>
<td>XTH10 Outdoor classroom</td>
<td>Various specially identified spaces for outdoor learning activities such as storytelling, science, art, D&amp;T, horticulture or working with animals</td>
<td>Full disabled access. To meet any special needs in the SSB</td>
<td>To suit activity and to ensure safety. Hard surfaced areas to be level, drain well and have an even surface free of obstructions</td>
<td>To be fenced and gated to control access</td>
<td>To meet the SSB, including any requirements for as FF&amp;E, planted areas, access to water and waterproof electrical outlets and special needs requirements e.g. raised planters or mobility training. Wi-Fi connections to School network</td>
</tr>
<tr>
<td>XTH30 Wildlife habitat area</td>
<td>Fenced and gated areas for outdoor ecology studies, including ponds, meadowland, copse or woodland</td>
<td>Full disabled access to a central vantage point as minimum</td>
<td>Mixed soft surfaces to encourage diverse planting and wildlife development</td>
<td>1.2m high sympathetic fencing and gate(s), permitting controlled pupil access</td>
<td>To meet the SSB including any requirements for FF&amp;E, planted areas, ponds (which may be part of a sustainable drainage scheme)</td>
</tr>
</tbody>
</table>
5. Habitat Areas

5.1. Overview

5.1.1. Any habitat areas provided shall comply with the requirements in Table 4. Habitat areas should be fenced and gated to avoid unsupervised access unless specified otherwise in the SSB. Any planted areas shall meet the requirements in Section 7.

6. Non-net Site Areas

6.1. Overview

6.1.1. Other than the footprint of the Building(s), the Non-net Site Area will include access and drop-off for people and deliveries, parking, refuse and recycling areas and outbuildings.

6.1.2. In any Non-net Areas provided, the Contractor shall provide a means of separating pedestrian access from vehicular circulation, delivery areas, refuse collection areas and parking.

6.2. Access

6.2.1. Where vehicular or pedestrian access is provided it shall meet the requirements of Table 5.

6.2.2. Any routes that could be used for maintenance vehicles and equipment, including mobile elevating work platforms (MEWP), shall be designed and constructed for this purpose, this shall include providing:

   a) sufficient space for safe movement, off-loading and delivering
   
   b) safe ground conditions (terrain and gradient)
   
   c) safe ground-bearing capacity along the route and where working
   
   d) clear passage between street furniture for access for MEWP equipment of appropriate size for the Building

6.2.3. Access routes for MEWP shall meet the requirements in the HSE General Information Sheet No. 6: ‘The section, management and use of mobile elevating work platforms.'
6.2.4. Access to any new or relocated outbuildings, including storage sheds, garages or plant (such as tanks storage) shall be suitable for the equipment stored and/or those likely to be using the spaces. There shall be controlled and locked access to any outbuildings.
Table 5: Requirements for Access Areas

<table>
<thead>
<tr>
<th>Space Type</th>
<th>Description and range of activities</th>
<th>Access</th>
<th>Surface</th>
<th>Fencing</th>
<th>Servicing &amp; other requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>XNN10 Pedestrian access</td>
<td>External pavement, pathways and ancillary hard surface areas providing appropriate access to the facilities</td>
<td>Full disabled access</td>
<td>Tarmac, paving or similar to allow pedestrian and light vehicular traffic in all weathers. To drain well with no ponding or static water and have an even surface, free of obstructions</td>
<td>Fencing or Barriers as Required to Ensure pupil safety from adjacent roadways, sports activities and changes in level</td>
<td>Lighting to provide safe and secure access around the facilities at all operational times. See Annex 2E ‘Daylight and Electric Lighting’ for specification</td>
</tr>
<tr>
<td>XNN20 Bicycle access/ storage Cycle ways and bicycle park</td>
<td>Secure and covered parking areas for bicycles, accessible to students, staff and visitors</td>
<td>Full disabled access</td>
<td>Tarmac, paving or similar to allow pedestrian and light vehicular traffic in all weathers. To drain well with no ponding or standing water and have an even surface, free of obstructions</td>
<td>Not required</td>
<td>Lighting to allow safe and secure use of the bicycle storage at all times. See Annex 2E ‘Daylight and Electric Lighting’ for specification. Non-obtrusive location close to the main student entrance with passive supervision. Controlled access to bicycle park to prevent unauthorised access</td>
</tr>
<tr>
<td>Space Type</td>
<td>Description and range of activities</td>
<td>Access</td>
<td>Surface</td>
<td>Fencing</td>
<td>Servicing &amp; other requirements</td>
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<tr>
<td>XNN30 Vehicle Access</td>
<td>Access roads from the public highway to the car park and delivery area; parking for staff and visitors' vehicles; parent drop off and bus access Access for emergency vehicles</td>
<td>Full disabled access Controlled access to the Secure Line to prevent unauthorised access. Any entrance through which appliances may need to pass shall meet the requirements of AD B</td>
<td>Tarmac or similar suitable for heavy vehicular traffic. To drain well with no ponding or static water and have an even surface, free of obstructions</td>
<td>N/A</td>
<td>Lighting to allow safe and secure use of the car park at all times. See Annex 2E ‘Daylight and Electric Lighting’ for specification. Parking to have identified disabled parking to meet local planning requirements. To meet a School’s access arrangements in SSB. All areas to have appropriate directional and safety markings and signage.</td>
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<td>Space Type</td>
<td>Description and range of activities</td>
<td>Access</td>
<td>Surface</td>
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<tr>
<td>XNN40 Bus/ coach parking/ drop-off</td>
<td>Hard surface for access and parking of bus and coaches. Access roads from the public highway to the bus and coach parking or drop off area</td>
<td>Full disabled access Drop-off in Special Schools to allow for set-down and drop-off without congestion (for example, by one-way traffic flow or a roundabout)</td>
<td>Tarmac or similar suitable for heavy vehicular traffic. To drain well and have an even surface, with no ponding or static water, free of obstructions</td>
<td>N/A</td>
<td>To meet School organisation and local planning requirements. All areas to have appropriate lighting (see Annex 2E ‘Daylight and Electric Lighting’ for specification), directional and safety markings, signage and allowance for turning circles</td>
</tr>
</tbody>
</table>
6.3. Outbuildings and External Storage

6.3.1. The Contractor shall ensure that any new or relocated outbuildings or external storage, including storage containers, garages, sheds, greenhouses and animal pens shall be located far enough from Buildings to prevent risk of spread of fire. Any new outbuildings shall be:

a) selected with due regard to their suitability for purpose and performance, durability, ease of cleaning, maintenance and repair and resistance to accidental or malicious damage

b) in accordance with local planning requirements or conditions

c) sufficiently robust to stand up well to heavy use and prevailing weather conditions

7. Landscaping and Groundworks

7.1 Overview

7.1.1. Any planting shall be designed to both conserve and enhance biodiversity and allow site management without the use of hazardous pesticides. Tree planting shall be in accordance with BS 8545:2014 ‘Trees: from nursery to independence in the landscape: Recommendations’.

7.1.2. All shrubs shall be planted in accordance with BS 3936-1:1992: ‘Nursery stock’. Specification for trees and shrubs. All planting shall be non-toxic in accordance with the series of BS 3936 ‘Nursery stock’, or good practice advice.

7.1.3. Any tree planting in hard landscaped areas shall include appropriate permanent and permeable material or grille at the base of the trunk. Bark chipping or other loose material in access, play or social areas is not acceptable.

7.1.4. For all areas that are to be grassed, seed experts and seed providers should be consulted to inform seed selection depending on soil type, condition, seasons and topography.

7.1.5. For the alleviation of compaction during construction, Good Industry Practice shall be followed for all areas to be grassed, in accordance with Defra: ‘Construction Code of Practice for the Sustainable Use of Soils on Construction Sites’ (2009); Sport England guidance: ‘Natural Turf for Sport’ (2011); BS 7370- 4; and BS 4428 shall be followed.
7.1.6. The Contractor shall ensure that the materials used for the preparation of landscaped areas (whether imported or re-used from the site) are free of pests and disease, corrosive materials, fragments of aggressive weeds, sticks, straw, pieces of brick, concrete, glass, lumps of vegetation, rubbish and the like.

7.1.7. Seeding and turfing shall only be undertaken in suitable growing seasons and/or when an appropriate watering regime is in place. Seeded/turfed areas shall be protected with temporary fencing for a minimum of 6 months from germination and maintained by the Contractor for a minimum of 12 months and/or until successful establishment occurs or the end of the defect’s liability period, whichever is longer.

7.1.8. In accordance with Sport England’s Design Guidance Note, ‘Natural Turf for Sport’: “As soon as the grass has started to establish, a rigorous programme of aftercare must commence with a sequence of operations to encourage the development of a strong dense sward. This must continue until the surface is ready for play.” The Contractor shall be responsible for carrying out this aftercare with a suitable maintenance regime of regular inspection, cutting, watering and any required remedial work to turfed/seeded areas as required for 12 months following first acceptance of the planted area.

7.1.9. The Contractor shall take account of the drainage conditions of the land and changes in water flows addressed wherever levels are being amended and/or spoil is being retained on site, so as to avoid excessive flooding, ponding of water on landscape areas and/or top soil washing onto low lying/paved areas.
8. Fencing and Barriers

8.1. Boundary Fencing

8.1.1. Any new fencing to the site boundary shall be designed to meet the security requirements in the SSB which will be based on a risk assessment and shall:

a) be a minimum of 2.4m in height

b) be constructed of appropriately spaced posts and panels of anti-climb weldmesh with no horizontal footholds

c) be in accordance with local design standards and any additional requirements of the SSB

d) have gates at agreed locations; the design, height and construction of which match the corresponding fencing system and maintain the same level of security

8.1.2. Planting in association with boundary fencing shall not facilitate scaling of fences. Boundary planting should allow good visibility along fence lines and there shall be no dense planting which could obscure intruders and impede passive supervision by passers-by. Any fixed external F&E shall not be located where it could provide a climbing aid over a fence.

8.2. Fencing to MUGAs and Hard-surfaced Games Courts

8.2.1. Any new fencing to MUGAs and hard-surfaced games courts shall be undertaken in accordance with the appropriate sections of BS 1722 and comply with the requirements of SAPCA Code of Practice for the Construction and Maintenance of Fencing Systems. Fencing to MUGAs shall also comply with the following requirements

a) To be in heavy-duty steel mesh with panels hot dip galvanised to BS EN ISO 1461 and polyester powder coated to standard colour agreed with the Employer.

b) To be 3m high unless otherwise stated in the SSB.

c) Kick boards to be a nominal 250mm high x 50mm thick, pressure treated, 40yr weather resistant smooth planed timber with chamfered top edge.
d) Rebound boards (where required in the SSB) to be 1.2m high by at least 12mm thick, homogenous resin based exterior grade boarding (colour to be agreed with the Employer).

8.2.2. Gates in fencing to a MUGA or hard-surfaced games court shall be provided to afford access at locations to suit adjacent roads, paths and directions of travel. Where provided they shall:

a) be fully infilled with weldmesh/ rebound boards / kick boards as appropriate, and provided with a suitable locking mechanism

b) open outwards for the safety of players

c) have boot cleaning facilities at main access gates, to prevent contamination of the playing surface with mud and material from outside the playing area

d) have level or slightly ramped (i.e. not stepped) thresholds

e) be positioned so as not to create 'tight' gathering or milling points, especially where pitch / games area team changeovers are scheduled

f) be 1.2m wide (single gates) or 3.0m wide with a removable lintel panel above for ease of access with soccer goals (double gates)

8.3. Fencing to Informal and Social Areas

8.3.1. Fencing provided to define activity zones or enclose activities shall suit the location and function. These could include bow top fencing to separate Early Years, weldmesh fencing for perimeter and play-courts, galvanised metal vertical bar railings, timber palisade fencing, timber post and rail fencing, rebound fencing, ball stop fencing, etc. as appropriate. The use of hedges instead of fencing or alongside temporary fencing may be used where appropriate if agreed with the Employer. See also 7.1.2.

8.4. Barriers and Guarding

8.4.1. The Contractor shall provide protection to any exposed elevations to new buildings by the use of protective planting or low fencing of at least 1.2m high, to avoid casual disturbance, such as balls striking windows or pupils banging on windows.

8.4.2. Appropriate street furniture and/or landscape detailing shall be provided to prevent accidental or deliberate vehicular contact with buildings or structures.
8.4.3. The design and materials of all external balustrades, barriers or guarding shall be as defined in BS 6180:2011 and AD K. Any glass to external balustrades, barriers or guarding shall be in accordance with BS 6180: 2011. Glass shall be laminated and toughened and fixed with bolt-through fixings when using an infill panel system. Balustrade and barrier systems shall be designed to meet BS6180:2011. Designs shall be certified by chartered structural engineers or a BSI kitemark registered manufacturer. Balustrade and barrier systems shall be installed by qualified, accredited and certified installers. The design of external stairs/ramps and handrails shall be coordinated so that handrails are continuous without vertical steps in the handrails.
9. References

9.1 Overview

9.1.1. The Contractor shall ensure that the design and construction of any external spaces, landscaping or groundworks takes account of the following reference standards and guidance.

a) HSE General Information Sheet No. 6: ‘The section, management and use of mobile elevating work platforms’.


e) EN1176: ‘Playground Equipment Standard’.

f) EN1177: ‘Impact absorbing playground surfacing: safety requirements and test methods’.

g) BS 8545:2014 ‘Trees: from nursery to independence in the landscape: recommendations’.

h) BS 3936-1:1992: ‘Nursery stock’.


l) BS EN 15330-2:2008: ‘Surfaces for sports areas’.

m) BS 6180: 2011: ‘Barriers in and about buildings’.

o) Related sections of the GDB:

i. Section 2.2 – Site Plan

ii. Section 2.4 – External Space and Grounds


10. Demonstrating Compliance

10.1 Overview

10.1.1. The information exchange required at each stage of the procurement process is detailed in the Employer's Requirements Deliverables.

10.1.2. Where work to external spaces is outside the scope of the Contractor's work, the Contractor shall assess the existing condition of the excluded areas and report to the Employer any areas which do not meet current regulations or the requirements of the GDB or SSB.