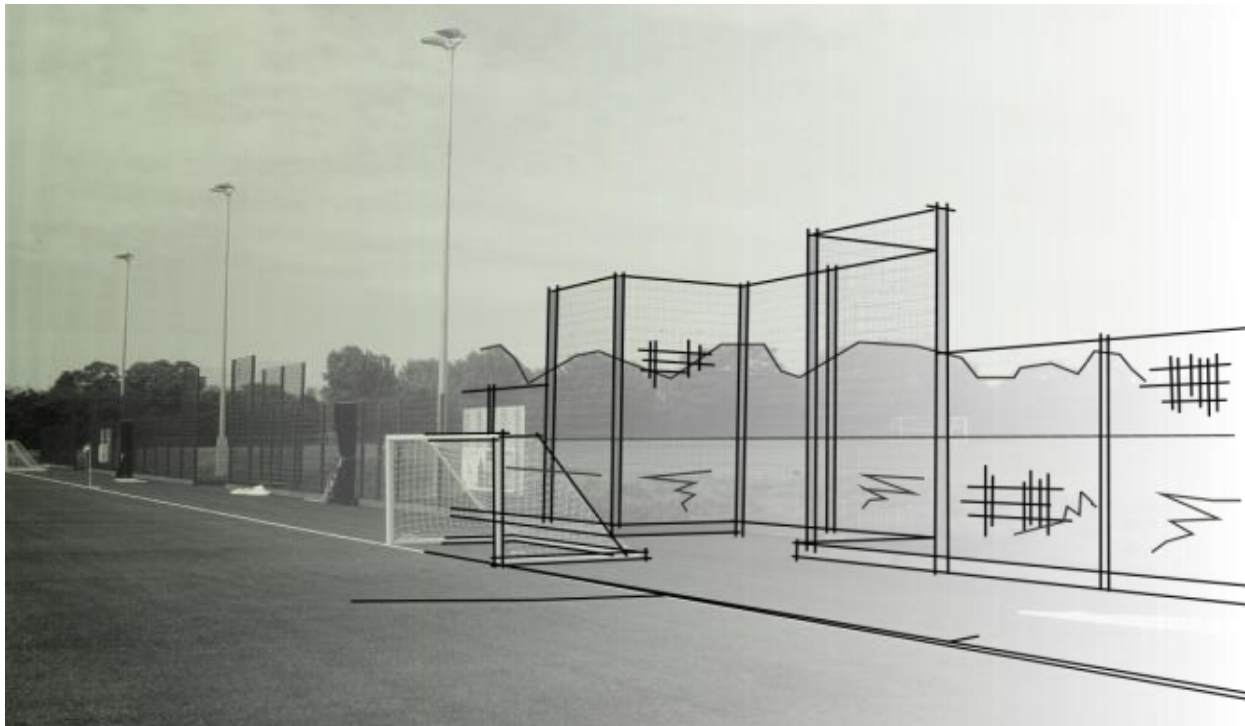


Baysgarth School

Creation of external 3G Artificial Grass Pitch (AGP)

Design and Access Statement with Planning Statement



Client	Baysgarth School Barrow Rd Barton-upon-Humber North Lincolnshire DN18 6AE		
Project	Creation of new external 3G Artificial Grass Pitch (AGP)		
SSL project code	SSL2155		
Document title	Design and Access Statement with Planning Statement		
Document control	Revision	By	Date
	First Issue Revision 01	TB TB	07 October 2016 14 October 2016

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1. Introduction

- 1.1 Surfacing Standards Ltd has been appointed to consider and develop an application for full planning permission for the proposed development at Baysgarth School.
- 1.2 In order to assist the application for full planning permission and to facilitate the implementation and delivery of the project; this document describes the project aspirations and illustrates the process that has led to the development proposal, and to explain and justify the proposal in a structured way.
- 1.3 This statement discusses design and access issues regarding the use, amount, layout, scale, landscaping, appearance and context of the scheme. In addition, the wider access implications of the proposal are addressed.
- 1.4 A planning statement is also provided to adequately address development plan policies and material considerations associated with this proposal.
- 1.5 The proposed development is located at:

Baysgarth School
Barrow Rd
Barton-upon-Humber
North Lincolnshire
DN18 6AE

- 1.6 The applicant is:

Baysgarth School
Barrow Rd
Barton-upon-Humber
North Lincolnshire
DN18 6AE

Mr Richard Briggs
Headteacher

- 1.7 The planning agent is:

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2. Design and Access Statement Principles

- 2.1. The National Planning Policy Framework sets out the Government's planning policies for England and how these are expected to be applied. It sets out the Government's requirements for the planning system only to the extent that it is relevant, proportionate and necessary to do so. It provides a framework within which local people and their accountable councils can produce their own distinctive local and neighbourhood plans, which reflect the needs and priorities of their communities.
- 2.2. Guidance on information requirements and validation, published by the Department for Communities and Local Government (March 2012) recommends that a design and access statement is a short report accompanying and supporting a planning application to illustrate the process that has led to the development proposal, and to explain the proposal in a structured way. The level of detail required in a design and access statement depends on the scale and complexity of the application, and the length of the statement varies accordingly. Statements must be proportionate to the complexity of the application, but need not be long. Further published recommendations are:
- Design and access statements help to ensure that development proposals are based on a thoughtful design process and a sustainable approach to access.
 - Statements should improve the quality of proposals: in preparing the design and access statement, developers need to consider and subsequently explain the merit of the design and how it relates to the existing setting.
 - Design and access statements enable local planning authorities to better understand the analysis which has underpinned the design and how it has led to the development of the scheme. This helps negotiations and decision-making and should lead to an improvement in the quality, sustainability and inclusiveness of the development.
 - Design and access statements allow local communities, access groups, amenity groups and other stakeholders to involve themselves more directly in the planning process without needing to interpret plans that can be technical and confusing. This helps to increase certainty for people affected by development and improve trust between communities, developers and planners. It also enables the design rationale for the proposal to be more transparent to stakeholders and the local planning authority.

2.3 What Is Required: The Design Component

The design and access statement should cover both the design principles and concepts that have been applied to the proposed development and how issues relating to access to the development have been dealt with. Statements should evolve throughout the design and development process.

A design and access statement for a planning application should explain the design principles and concepts that have been applied to particular aspects of the proposal. These are:

- **Scale:** Scale is the height, width and length of a building or buildings in relation to its surroundings.
- **Amount:** The amount of development is how much development is proposed. For residential development, this means the number of proposed units for residential use and for all other development, this means the proposed floor space for each proposed use.
- **Layout:** The layout is the way in which buildings, routes and open spaces (both private and public) are provided, placed and orientated in relation to each other and buildings and spaces surrounding the development.
- **Landscaping:** Landscaping is the treatment of private and public spaces to enhance or protect the amenities of the site and the area in which it is situated through hard and soft landscaping measures. Statements should also explain the function of the landscaping, for instance for sustainable drainage purposes, providing shading or other climate change adaptation purposes, and explain how it will be maintained.
- **Appearance:** Appearance is the aspect of a place or building that determines the visual impression it makes, including the external built form of the development, its architecture, materials, decoration, lighting, colour and texture.

2.4 What Is Required: The Access Component

It is important to note that the requirement for the access component of the statement relates only to 'access to the development' and therefore does not extend to internal aspects of individual buildings. Statements should explain how access arrangements will ensure that all users will have equal and convenient access to buildings and spaces and the public transport network. The statement should address the need for flexibility of the development and how it may adapt to changing needs.

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3. Design and Access Statement

3.1 Having followed planning policy recommendations and published technical guidance, we consider the proposal is based upon best design practices for external sports facility provision.

3.2 Proposal Description

Planning permission is sought to create a new external sports pitch with associated features including:

- Installation of new Artificial Grass Pitch (AGP) pitch surface with 3G artificial grass to accommodate an 11v11 football pitch sized 106 x 70m plus a variety of youth football pitches, mini soccer pitches and training areas.
- Installation of new 4.5m high ball stop fencing to the AGP perimeter.
- Installation of new pitch perimeter barrier (1.20m and 2.0m high) internally within the pitch enclosure, to segregate the pitch playing area from adjoining Respect spectator area.
- Installation of new hard standing areas adjoining the AGP perimeter complete with associated porous asphalt surfacing and matching ball stop fencing for pedestrian access, goals storage, spectator viewing space and vehicular maintenance access.
- Installation of new floodlight system.
- Installation of new maintenance / sports equipment storage container located within the fenced facility enclosure.

3.3 Site Description



The application site is located within Baysgarth School, located on Barrow Road within Barton.

The site is located within the development boundary of Barton and is outside of the designated conversation area.

Baysgarth School is situated in a predominantly residential area on the South Eastern periphery of Barton and the application site form part of the school's grass playing field and is currently used as football pitch surfaced in tender grass formed towards the Western part of the existing school playing field.

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Trees approximately 10m in height are located adjacent to the Western perimeter of the application site.

A Multi Use Games Area (MUGA) is located adjacent to the North, with grassed playing fields extending beyond all other site boundaries (South, West and East).

The boundary of the school site is secured with palisade fencing (2m high).

3.3.1 Site History

An attempt to trace the history of the site has been carried out by reviewing readily available Ordnance Survey maps as follows:

- The earliest map, 1880's, records the site as open fields likely to consist of arable land.
- A quarry is recorded adjacent to the East of the site.
- The site forms part of Beretum Secondary School playing fields from 1968, recorded as Baysgarth School from 1983.

3.3.2 Coal Mining

The Coal Authority website indicates the application site is not located within an area affected by past or present coal mining, or minerals worked in association with coal or indeed brine extraction.

3.3.3 Landfilling

Based on available data, there are no recorded historical or current landfill sites on the application site, however, a historical landfill site is recorded adjacent to the South West within the corner of the schools playing field (known as Caistor Road / Grammar School Road).

There are no details on the types of waste deposited.

3.3.4 Surrounding Land Use

The type of land uses surrounding the application site include:

North– Educational (Baysgarth School).

South– Educational, sports and recreation (school playing fields and facilities) / Highway beyond (Caistor Road).

West – Educational, sports and recreation (school playing fields and facilities) / Residential beyond (Nightingale Close).

East – Educational, sports and recreation (school playing fields and facilities) / Residential beyond (Nicolson Drive / Meadow Drive).

3.4 Purpose and Use

This application seeks planning permission to create a new external 3G Artificial Grass Pitch (AGP) in order to contribute to the improvement of sporting and recreational facilities at the school.

The provision of a new AGP will provide increased usage in comparison to the existing grassed football pitch, for benefit of Baysgarth School and its partner organisations and community groups including local junior and youth football clubs to gain the maximum football developmental outcomes; both during the day and during evenings and at weekends via pre-arranged and structured community access.

The new AGP will offer a variety of football pitches and training areas within the same enclosed playing space to support development plans into grassroots football.

In accordance with The Football Association's (FA) current technical guidance, the aspiration is to introduce multiple pitch markings to gain the maximum football developmental outcomes and benefit from the site footprint.

The AGP will be capable of supporting the following formal pitch arrangement:

Age grouping	Type	Pitch size	Quantity
Over 18 and Adult Football	11v11	100 x 64m	1
Youth U11 / U12*	9v9	63.8 x 45.8m	2
Mini Soccer U9 / U10**	7v7	55 x 37m	2
Mini Soccer U7 / U8* **	5v5	37 x 27m	4
Training Areas**	Various	48 x 30m	4

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*Smaller than recommended size, but acceptable for match play use			
**the variety of over markings will be agreed in due course, to be considered against the football development plan			

3.5 Amount

The proposed development has been prepared in accordance with published Design Guidance Notes (The Football Association (FA) / Sport England) pertinent to external artificial sports facility provision.

The 3G Artificial Grass Pitch (AGP) design is in accordance with The FA Guide to 3G Football Turf Pitch Design Principles and Layouts and the proposed amount of development is:

Aspect	Quantity	Area
3G artificial grass pitch area	1no. 106 x 70m	7420m ²
Hard standing Respect spectator area (including 1no. goal storage area)	1no. 76.245 x 4m	305m ²
Hard standing goal storage areas – lateral	3no. 7.50 x 2m	45m ²
Hard standing goal storage areas – longitudinal	2no. 30 x 3m	180m ²
PCC slab surfaced mowing margin	1no. 380 x 0.6m	228m ²
Macadam surfaced clean access (pedestrian / maintenance and emergency)	1no. irregular area	50m ²
Total		8228m²

3.6 Layout

The proposed 3G Artificial Grass Pitch (AGP) will be located to the South (the rear) of the school site and situated behind main school building.

The AGP will be situated close to a new changing room building, an existing Multi Use Games Area (MUGA) and new skate park. The AGP will be surrounded by the school's playing field to the West, South and East.

The proposed AGP location will not require the removal of any existing retained tree but will result in the loss of a usable grassed playing pitch.

Overall usage however will not decrease and the proposal will result in greater capacity utilisation across the playing season for training sessions and match play (for mini, youth and adult football), resulting in a greater amount of playing pitches to be marked onto the artificial grass pitch surface.

This intensification of use is made possible by the introduction of an artificial grass pitch surface which is more durable in comparison to natural turf and especially during winter weather conditions, plus the provision of artificial (flood) lighting.

The proposed AGP also avoids close season maintenance works.

Due to the generous size of the playing field, all other sports (winter and summer) will remain unaffected to satisfy winter and summer curriculum sport.

During a feasibility study, the optimum location for the proposed AGP at Baysgarth School was considered.

Considerations included:

- Convenient proximity changing rooms
- Convenient proximity welfare accommodation
- Convenient proximity reception facilities
- Convenient proximity management and supervision offices
- Convenient proximity of vehicular parking areas
- Avoidance of unacceptable impact to residential neighbours (noise, visual and artificial lighting) or the ability for impact mitigation measures
- Adequate future arrangement of playing pitches (for summer and winter sports)
- Minimal impact as possible to local ecology and biodiversity

The proposed AGP will be sited close to existing onsite facilities; providing convenient access to and from changing rooms offering changing accommodation and administration facilities.

This location will also afford convenient pedestrian, maintenance and emergency access as well and providing for suitable management, supervision and security.

It was concluded the proposed application site provides the best solution for the above considerations.

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3.7 Scale

The proposed height of new open steel mesh ball stop fencing and entrance gates around the entire pitch perimeter enclosing the 3G Artificial Grass Pitch (AGP) will be 4.5m above ground level.

The proposed height of new open steel mesh pitch perimeter barrier and entrance gates internally within the pitch enclosure to segregate the artificial grass pitch surface from adjoining hard standing area is 1.2m to 2.0m above ground level.

The proposed floodlight system comprises six (6no.) masts mounted with eighteen luminaires at heights of 15m high above ground level to the AGP in a 2no. / 5no. / 2no. arrangement along Northern and Southern longitudinal sides of the AGP.

The proposed height of new outdoor maintenance equipment store is 2.59m above ground level.

3.8 Landscaping

It is acknowledged that the proposed development will replace part of an existing grassed playing field Baysgarth School.

With the exception of hard landscaping, all other soft ground surrounding the area affected by the development shall be reinstated to grass (soft landscaping) to enable effective grounds maintenance to surrounding grassed areas and retention of grassed playing pitches.

New hard landscaping treatment around the facility is restricted to porous asphalt surfacing for pedestrian access, goals storage, spectator viewing space and vehicular access for maintenance operations.

Soil shall be reinstated to grass (soft landscaping) in accordance with BS 4428 Code of Practice for General Landscape Operations.

In order to eliminate offsite disposal, all excavated Topsoil will be retained onsite as a sculpted grass bund / mound adjacent to the playing field boundary adjacent to Caistor Road. This area will be supplementary to the school's playing pitch requirements post development and the bund / bound will also provide a visual and acoustic buffer to the closest residential neighbours.

To this deposit location, the existing grassed ground should be prepared by harrowing and surface stripping as necessary in order to receive arisings. The arisings will then be deposited and then graded and compacted in distinct layers and finished with natural shallow batters and shallow banking / batters to tie into adjacent land as necessary. Any batter and banking shall contain slopes no greater 33°. Topsoil will then be cultivated to a depth of 200mm, harrowed to produce a friable tilth, graded and stone picked to remove all debris larger than 10mm. Other stones should be appropriately buried. Topsoil will finally be sprayed with a pre-seeding 10-15-10 fertiliser applied at 50g/m² and seeded using a suitable amenity grass mix at approx 28g/m².

3.9 Appearance

The intention is develop the pitch with minimal visual impact when viewed from any adjacent properties looking into the 3G Artificial Grass Pitch (AGP), which is necessary to satisfy local policies which seek to ensure that proposals are sympathetic to its surroundings and will not impact on the visual amenity of the area and the amenity of neighbouring residents.

The proposed finished appearance of principal pitch features is as follows:

3.9.1 3G Artificial Grass Playing Surface

The installed appearance of the playing surface will comprise a 3G artificial turf containing a 60mm pile and partially in-filled with silica sand (for stability) and granulate rubber (for performance), coloured grass green.

This is consistent with current Football Association (FA) technical requirements to deliver adequate performance characteristics for the intended sporting activities.

This surface type is recognised as the most suitable artificial playing surface for community football and youth football development.

This surface type is credited as 'preferred football surface' and 'surface for high level competition / training' within Sport England's guidance document 'Selecting the Right Artificial Surface for Hockey, Football, Rugby League and Rugby Union' Issue 002 / December 2010.

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3.9.2 Perimeter Ball Stop Fencing

The proposed type and quality of ball-stop fencing is consistent with current Football Association (FA) technical requirements for fencing to enclose artificial grass sports pitches.

The installed appearance of perimeter ball stop fencing (4.5m high) will be finished to polyester powder coated RAL6005 Dark Green, all supported with an intermediate post system and entrance gates of matching colour.

The fencing type will be steel open mesh fencing containing a general 200x50mm aperture (and 66x50mm rebound aperture to the internal pitch perimeter barrier). Fence panels are insulated from the posts using neoprene washers to be fitted to every fence post / mesh fixing point to aid noise reduction and acoustic attenuation by reducing rattle and vibration from ball impacts.

Panels are fixed onto posts with 8mm galvanised security bolts to (U shape) brackets containing threaded inserts and neoprene washers (inserts) to reduce panel rattle and vibration from ball impacts. Panel connectors are applied at horizontal panel joins to increase the overall rigidity of the product.

3.9.3 AGP Floodlights

The installed appearance of the new artificial lighting system will include six (6no.) 15m high sectional octagonal mid-hinge steel masts finished galvanised (Z275) self-coloured, mounted with eighteen (18no.) luminaires c/w 2kW lamps and fittings finished raw aluminium.

3.9.4 Hard Standing Areas

The installed appearance of new hard standing areas (clean access for pedestrians and spectators as well as vehicular access for maintenance operations) will be grey / black coloured porous asphalt.

3.9.5 Maintenance Equipment Storage Container

The installed appearance of the new storage containers includes high tensile rust inhibiting corten steel, finished dark green with polyester powder coating and with steel ramps for easy equipment access and egress.

3.10 Pedestrian And Vehicular Access (Transport Assessment)

Introduction

This transport information provides sufficient information to demonstrate the proposed development will not be prejudicial to the satisfactory functioning of the highway and that additional traffic movements generated by the proposal will not result in unacceptable impacts on the highway network.

In accordance with Transport Assessment Guidelines for smaller developments, this statement addresses particular localised transport issues with the following details:

- Description of development
- Description of existing networks
- Public transport accessibility
- Access for pedestrians and cyclists
- Access for those with mobility problems
- Trip and traffic generation
- Parking and deliveries
- Measures to mitigate impacts

This statement also clarifies submitted statements regarding maintenance and emergency access to the proposal.

Description of Existing Networks

Baysgarth School is situated along the Southern side of Barrow Road (A1077) in a predominantly residential area on the South Eastern periphery of Barton.

Barrow Road is a primary highway and when passing the school is restricted to a 30mph speed limit.

Barrow Road is approximately 1.16 miles from the coastal tidal high water mark and is 20 metres above sea level

Footways and cycle lanes are provided on both sides of the road with street lighting.

Pedestrian and vehicular access to and from the school is gained via an established paved / hard standing driveway

Public Transport Accessibility

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Bus

There is a large provision of frequent bus services within the local area that service bus stops in close proximity of the site.

The nearest bus stops to the school are all located in close proximity to the school on Barrow Road.

Bus services are provided by several operators throughout each week on Saturdays including

No.252
No.254
No.260
No.360
No.450
No.S1

Rail

The nearest railway station to the site is Barton-upon-Humber railway station, Waterside Road located approximately 1.35km following the road network (or 15 minutes' walk) to the North West of the site.

This is within the 'preferred maximum' CIHT walking distance discussed below.

Nine regular services per day are provided from Monday to Saturday by Northern Rail between

Summary:

This section has demonstrated that the site is easily accessible by public transport which is in accordance with local and national objectives.

Access for Pedestrians and Cyclists

Pedestrian Access

Paragraph 2.3 of the Design Manual for Roads and Bridges TD91/05 'Provision for non-motorised users' states: 'walking is used to access a wide variety of destinations including educational facilities, shops, and places of work, normally within a range of up to 2 miles'.

Such a distance captures the majority of the local urban and residential areas as well as the nearest bus stops and railway station.

Footways are provided along both sides of Barrow Road and connecting highways to provide a link for pedestrians between the site and surrounding residential areas.

Cyclist Access

Cycling is considered to be a reasonable alternative to the car over short journeys.

Former government policy (PPG13) has indicated that cycling can be an effective form of travel for journeys up to five kilometres.

This is supported in more recent government lead research the 'Smarter Choices Programme' which has proven that significant levels of modal shift can be achieved for journeys up to this distance.

Barrow Road (A1077) accommodates cyclists both during the day and at night, with illumination provided by street lighting.

Summary:

This section has demonstrated that the site is easily accessible by foot and cycles which is in accordance with local and national objectives.

Access for Those with Mobility Problems

The established main school entrance adjoining Barrow Road comprises even textured asphalt surface and is accessible for persons with mobility problems.

Similarly hard standing pavements around school buildings, new hard standing areas proposed around the 3G Artificial Grass Pitch (AGP) and throughout onsite car parking areas are all accessible for disabled persons.

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Disabled access has been carefully considered throughout the whole design and applied wherever possible. The intention is to provide a smooth transition to and from areas within the sports ground, for use by people of all ages and abilities.

The site is compatible currently for disability parking and access with appropriate circulation routes.

All new pedestrian paths shall be compliant with Disability Discrimination Act (DDA) regulations and Sport England's Technical Design Guidance Note 'Accessible Sports Facilities 2010'.

Summary:

This section has demonstrated that the site is accessible for persons with mobility problems.

Trip and Traffic Generation and Parking Capacity

This section considers the movement of users to and from the AGP, the resultant parking demand and the effect of movement upon the local highway and transport networks.

Onsite Parking Capacity

Permanent onsite vehicle parking provides the opportunity for 63no. standard parking spaces and 3no. accessible parking spaces to be accommodated simultaneously.

There is space within the car park for turning to enable vehicles to enter and exit in a forward gear.

Proposed Trip Generation

New trips would be generated following the introduction of the 3G Artificial Grass Pitch (AGP) during the daytime and evening weekday periods and during weekends, when the AGP hours of operation will extend beyond times when the existing grass playing pitch is used.

This is resultant from an intensification of use made possible by the enhanced durability of the 3G artificial grass playing surface, especially during winter weather conditions.

The application requests opening hours from 0900 to 2200 Monday to Friday and 0900 to 2000 Saturday and Sunday.

The expected usage of the facility would be primarily by local organisations and also use from visiting teams, partner organisations and community groups from the surrounding local area.

Person trip rates have been based on the maximum level of players and spectators expected to use the site during a single event.

To produce a robust assessment, the following likely parking demands are considered.

1. During the school day, Baysgarth School and feeder schools will use the AGP for school PE curriculum activities and no increase in traffic is expected during this time.
2. After the school day and at weekends (outside school hours), the AGP will be used by local community groups and sports clubs.
3. The current onsite parking provision offers 63no. standard parking spaces and 3no. accessible parking spaces and 4no. mini bus parking spaces; 66no. parking spaces in total.
4. There is a layby area at the school frontage which allows easy drop of and pick up for cars and bus / coach transport.
5. If 50% community users all travel to site by car alone (or driven by parents), the expected maximum evening and weekend car parking demands are as follows:
 - Presuming the pitch is used in quarters for training / grassroots development / mini soccer / small-sided football (eight teams in total at any one time using the pitch);
 - Presuming each team will include 6no. players including substitutes and 2no. coaches (or similar) – 8no. persons in total per team;
 - Then the maximum persons to use the pitch at any time will be 64no.
 - Multiply by two for session change-over;

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- Then the maximum participants on site at any time will be 128no.
- The necessary car parking requirement will be a maximum 64no. parking spaces, presuming 50% of customers reach the school by car alone (or driven by parents), which is considered to be unlikely with car sharing, drop-off-and-collect, mini bus and public transport, walking and cycling being promoted to all pitch users).
- With 64no. parking spaces in use, 2no. spaces will be available for school staff (management, supervision and administration); which is considered adequate.

The proposed development provides car parking capacity sufficient to accommodate the above scenario and therefore all other proposed activities during a playing season.

There would be no overspill of parking onto the public highway (Barrow Road).

Summary:

This section has demonstrated that the site provides 66no. vehicle (car) parking spaces and the most intense demand for onsite vehicle parking (64no. vehicles) can therefore be accommodated within existing parking areas onsite and would not lead to any overspill onto the local highway network.

It is therefore anticipated that the proposed AGP would generate only a slight to moderate increase in traffic generation, with additional traffic at the extended times of use particularly during weekday evening activities and weekend daytime and evening activities, in comparison to the extant use.

It is therefore concluded that onsite parking provision can accommodate the expected vehicular traffic during operational hours of use during the day, as well as at evenings and weekends for pitch users.

Deliveries

No changes will occur to the refuse and servicing arrangements as a result of the development and this is because the nature of the proposal will not generate on-site waste during the life cycle of the development.

Traffic Movement

Normal peak school traffic movements are typically each week day from 8am to 8.30am each morning and then from 2.30pm to 3.30pm each afternoon (the school closes at 2.40pm each weekday).

At the end of each school day the site typically clears very quickly with students and staff departing the site.

This would then allow for all vacated car parking spaces to then be allocated accordingly for community visitors arriving at the school to enjoy the AGP.

Across the school calendar year, the school hosts a number of typical events such as parent's evenings, open evenings and general events.

Baysgarth School will manage traffic volumes accordingly on those evenings when events are scheduled to mitigate onsite car parking congestion.

Typically the main period of AGP use will be in accordance with the football season. In addition there will increased usage during the spring and summer periods catering for football training and development activities.

Measures to Mitigate Impacts

Impact on Parking Capacity

When the site is used at maximum capacity, 64no. spaces will be required to accommodate players, spectators and rugby club staff as per the scenario described above.

Current and retained onsite vehicle parking provides for 66no. cars to be accommodated simultaneously.

There will be increased traffic movement as a result of the new facility, however this will occur in outside the normal current of site use and sufficient car parking provision onsite will always be available.

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Baysgarth School is committed to encouraging green travel walking, cycling and the use of public transport modes; and will also continue to be promoted whenever possible.

The promotion of car sharing and the use of mini bus (or similar) will also continue to pitch users and organiser, spectators and visitors to the site.

Impact on Pedestrian and Cyclist Routes and Public Transport

The previous sections have demonstrated that the site is easily accessible by foot, bicycle and public transport (bus and train), which is in accordance with local and national objectives.

As such, there will be sufficient capacity along local footways and cycle ways to offer safe and easy travel for those travelling on foot or by bicycle.

Also, there should be ample capacity by continuing public transport methods for easy travel to and from the site.

Impacts on the Highway Network and Parking

The proposed development also includes the provision of car parking which offers sufficient capacity for the scenario considered above, which represents maximum AGP usage.

There would be no overspill of parking onto the public highway.

Site Access

No changes will be made to the existing access from Barrow Road and onsite parking areas will continue to be available to all vehicle users.

Construction

A construction logistics plan in accordance with the adopted Construction Environmental Management Plan (CEMP), will be submitted for approval pre commencement to ensure construction vehicles will not have a detrimental impact on the vicinity of the site including the provision of adequate parking for construction vehicles onsite and to prevent on-street conflict and impacts to the highway safety and to prevent pollution and the protection of residential amenity.

Also for the protection of residential amenity, the proposed times of construction, demolition and site clearance operations shall be limited to the following hours:

- 0700 to 1900 Monday to Friday.
- 0700 to 1300 Saturday.

No construction operations on Sundays or public holidays.

HGV movements shall not be permitted outside these hours during the construction phase without prior written approval from the Local Planning Authority.

Installation of equipment on site shall not be permitted outside these hours without prior written approval from the Local Planning Authority.

Conclusions

To conclude, the proposed uses of the site will result in a negligible impact on the local highway network and local transport network and will not lead to car parking stress on the local roads.

The car parking proposed on site could accommodate the maximum number of vehicles assumed to be on site at any one time and there would be no overspill of demand onto the public highway.

Regular school traffic movements and new traffic generated by use of the proposed new 3G Artificial Grass Pitch (AGP) will be such that the both functions will not overlap and / or impact on each other will therefore not create undue congestion.

As such, and no adverse pressure to the onsite parking provision is envisaged and it is concluded that onsite parking provision can accommodate the expected vehicular traffic during operational hours of use during the day and outside normal school hours (at evenings and weekends) for community visitors.

The expected usage of the facility will be continue to enjoyed by primarily local organisations and it is therefore expected that the requirement for car parking will be satisfied by existing onsite parking arrangements, offering ample space to accommodate users of the proposed pitch travelling by car and preventing congestion to the local highway network.

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It is therefore concluded that onsite parking provision can accommodate the expected vehicular traffic during operational hours.

Equally, green travel opportunities including walking and cycling will also continue to be promoted by the applicant whenever possible.

There should therefore be no transport or highway related reasons for not permitting development.

Maintenance and Emergency Access

To clarify the maintenance and emergency access to the AGP, maintenance vehicles will enter and exit the pitch via a double leaf gate located in line with ball stop fencing enclosing the AGP along the Northern lateral pitch perimeter.

For external sports pitches, emergency access is used to describe how an ambulance will reach the pitch perimeter (but not enter the AGP) in the event that a player is injured during play / activity and requires medical help.

As such, ambulant access is provided by the same double leaf gate located along the Northern lateral pitch perimeter.

3.11 Inclusive Access

Disabled access has been carefully considered throughout the whole design and applied wherever possible. The intention is to provide a smooth transition to and from areas within the sports ground, for use by people of all ages and abilities.

The site is compatible currently for disability parking and access with appropriate circulation routes.

All new pedestrian paths shall be compliant with Disability Discrimination Act (DDA) regulations and Sport England's Technical Design Guidance Note 'Accessible Sports Facilities 2010'.

The proposed pitch playing surface to the shall replicate the qualities of fine sports turf.

New changing facilities will be equipped with accessible toilets and there are available facilities within the new school that meet the Changing Places Standard.

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4. Planning Statement

4.1 Planning Considerations

We understand that development management decisions must be taken in accordance with the National Planning Policy Framework (NPPF) and North Lincolnshire Council policies including material planning considerations relevant to the proposal.

4.2 Planning History

PA/2014/1301	New School to replace existing secondary school on site
PA/2015/1241	Construction of a new-build changing room facility and provision of a skate park and two netball courts within the school grounds

4.3 Material Planning Considerations

Having reviewed the Council's local validation checklist, we acknowledge the following material planning considerations relevant to the proposal include:

- Compliance with relevant planning policy guidance, local development plans and policies
- Principal of development to enable Sport England's informed assessment of whether the proposed benefits to sport associated with development would be sufficient to outweigh the detriment associated with the impact on the playing field and satisfy exception policy E5 of Sport England's playing fields policy 'A Sporting Future for the Playing Fields of England 1997'
- Design and impact upon the character and appearance of the surrounding area
- Adequate impact mitigation to residential neighbours (protecting visual amenity and residential amenity)
- Artificial Grass Pitch (AGP) rationale and sport related benefits
- AGP management and maintenance programme
- Lighting / Floodlighting schemes including a light pollution assessment
- Sustainable Drainage Assessment / Sustainable Drainage Operation and Maintenance Plan
- Community use scheme including details of pricing policy, hours of use, access by non-school users and management responsibilities
- Archaeological Assessment
- Geotechnical Survey (Contamination)
- Community Use Agreement
- Protection of Ecology and Biodiversity

4.4 Assessment of Planning Issues

We believe the proposal is in accordance with the National Planning Policy Framework (NPPF) and North Lincolnshire Council's policies specifically in the following policy terms and information to satisfy these critical factors is discussed below.

4.5 National Planning Policy Framework (2012) Achieving Sustainable Development

Policy extract:

7. There are three dimensions to sustainable development: economic, social and environmental. These dimensions give rise to the need for the planning system to perform a number of roles:

- *an economic role – contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure;*

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- a social role – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being; and
- an environmental role – contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.

The National Planning Policy Framework introduced a presumption in favour of sustainable development and this can be set out as three dimensions – Economic Role, Social Role and Environmental Role.

This proposal aims to contribute to the above areas.

- Economic Role – providing a self-funding facility for use by Baysgarth School and its partner organisations.
- Social Role – providing modern facilities that will encourage the maximum football developmental outcomes with the benefits to health and wellbeing associated with this.
- Environmental Role – ensuring that the existing natural environment is not harmed and that facilities are designed to conserve and reduce energy wastage wherever possible.

In a sporting context, this proposal seeks to:

- Provide opportunities for the local community and sports organisations to participate in sport and physical activity for health improvement and development of their skills, particularly amongst low participant groups;
- Operate in line with the national agenda for sport taking into account nationally adopted strategies;
- Generate positive attitudes in sport and physical activity by young people and reducing the dropout rate in sports participation with age;
- Increase the number of people of all ages and abilities participating in sport and physical activity including people with disabilities;
- Use the facilities to encourage the range, quality and number of sports club links and to stimulate competition that is inclusive of young people and adults;
- Provide affordable access to the facilities and to be self-financing in terms of community use;
- Contribute to The Football Association's strategic objectives for grassroots football development;
- Satisfy competition play and training needs with a robust sustainable business plan to monitor the delivery of the football development plan on a regular basis. The committee will review a variety of objectives and controls to correctly manage, adequately operate and maintain the facility;
- Ensure the AGP, once subjected to performance testing to validate necessary quality standards, is added to the FA register of approved sites for match play.

4.5.1 Maintenance Considerations and Sustainability

Maintenance of the the 3G Artificial Grass Pitch (AGP) will be managed by Baysgarth School's grounds team on a daily and weekly basis with specialist contractors utilised as necessary to perform specialised reports and annual and biannual maintenance routines.

A sinking fund will be developed using the income from partner organisations hire and community lettings in order to replace the artificial grass surface at the end of its working life, along with other necessary refurbishment works.

4.5.2 Energy and Waste Reduction

The proposed development will require the removal and re development of a grassed playing field at Baysgarth School; however a variety of efficiencies will be applied to the construction stage to mitigate environmental impact and benefit the carbon footprint of the development.

Significant reduction in the use of energy and / or water, and reduce waste in the construction and operation of the facility will be achieved by:

- Excavations limited to the removal of turf and topsoil only.

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- Imported granular sub-base aggregates to form the pitch foundations shall be locally sourced from local quarries or suppliers to reduce transportation
- The implementation of the development does not require water supplies.
- Control gears for the floodlight system shall include photocell units and time clocks, to ensure artificial lighting does not illuminate before dusk and lighting does not exceed the permitted curfew hour.
- For the artificial grass playing surface, modern textile manufacturing methods and technology continues to advance. As such, it is common place for artificial grass surfaces to be recycled at the end of their life cycle and be re-made into new similar surfaces or other products. It can be expected that technologies will enable this environmental sustainability form of recycling to be common place in the future, to the benefit of this proposal when refurbishment is due after an initial life cycle. This will beneficially affect the 3G playing surface (7420 square metre area), silica sand infill (74tonnes) and granulate rubber infill (112 tonnes).
- With regards to the granulate rubber infill, this material is a recycled product produced from previous vehicle tyres.

In conclusion the proposed 3G Artificial Grass Pitch (AGP) will replace existing grassed playing field provision with:

- Better quality provision
- Provide access to greater quantity of provision
- In a suitable location
- Supported by effective and appropriate management arrangements
- Implemented with best practice construction techniques to minimise waste and pollution

4.6 National Planning Policy Framework (2012)
Section 8 – Promoting Healthy Communities

Policy extract:

73. Access to high quality open spaces and opportunities for sport and recreation can make an important contribution to the health and well-being of communities. Planning policies should be based on robust and up-to-date assessments of the needs for open space, sports and recreation facilities and opportunities for new provision. The assessments should identify specific needs and quantitative or qualitative deficits or surpluses of open space, sports and recreational facilities in the local area. Information gained from the assessments should be used to determine what open space, sports and recreational provision is required.

74. Existing open space, sports and recreational buildings and land, including playing fields, should not be built on unless:

- *an assessment has been undertaken which has clearly shown the open space, buildings or land to be surplus to requirements; or*
- *the loss resulting from the proposed development would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location; or*
- *the development is for alternative sports and recreational provision, the needs for which clearly outweigh the loss.*

The planning system encourages and promotes the retention of existing and the provision of additional, outdoor sports facilities, both public and private.

This is reaffirmed by the National Planning Policy Framework as existing open space, sports and recreational buildings and land, including playing fields, should not be built on unless it can be demonstrated the building or land is surplus to requirements, the loss resulting from the proposed development would be replaced by equivalent or better provision in terms of quantity or quality in a suitable location or if an alternative development could benefit the community and outweigh the loss of an open space as it is felt access to high quality open spaces and opportunities for sport and recreation can make an important contribution to the health and well-being of communities.

Whilst it is acknowledged the proposed development would result in the loss of a playing pitch, it must be noted that the scheme would provide a purpose build multi-functional facility that would facilitate greater level of use throughout the day and year.

In addition when assessing the proposal, consideration must be given to the importance of the standard of design and compatibility of a scheme to harmonise with the general character of the area in which they are set, the impact upon the private amenity of the neighbouring occupiers and highway safety, amongst other material considerations.

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The proposed development will implement better provision in terms of quality and quantity and in a suitable location to benefit the community and provide access and opportunities for sport and recreation, making an important contribution to the health and well-being of communities.

The proposal will be sited close to existing onsite facilities; providing convenient access to and from welfare facilities for students and visitors alike.

This location will also afford convenient pedestrian and maintenance access as well as providing for suitable management, supervision and security by Baysgarth School's management and administration teams.

The close proximity of existing facilities described above will help to create a vibrant and successful place and a safe and accessible environment.

This proposal satisfies the above planning objectives and is beneficial to the advancement of sports activity and development. It will deliver genuine beneficial outcomes as follows:

- Implement social, recreational and cultural facilities and services for community needs to enhance the sustainability of Baysgarth School and the surrounding area of Barton-upon-Humber and North Lincolnshire.
- Provide access to high quality open spaces and opportunities for sport and recreation can make an important contribution to the health and wellbeing of the local community.
- Compensate the loss of part of a usable playing field resulting from the proposed development with better provision by more robust and durable 3G Artificial Grass Pitch (AGP).

The proposed development will provide a clean, safe and modern facility to inspire sporting participation and will enhance the existing sport and recreation provision at Baysgarth School.

It will provide a genuine asset for the applicant and local community sporting groups and organisations.

It will encourage and inspire more people of all ages to participate in sport.

For these reasons, we believe the following objectives have been satisfied:

- Supporting and enhance the continued regeneration in Barton-upon-Humber and North Lincolnshire.
- Promotion of social inclusion and community cohesion.
- Health and wellbeing.
- Promoting more sustainable development.

4.7 National Planning Policy Framework (2012)
Section 10 – Meeting the Challenge of Climate Change, Flooding and Coastal Change

Policy extract:

103. When determining planning applications, local planning authorities should ensure flood risk is not increased elsewhere and only consider development appropriate in areas at risk of flooding where, informed by a site-specific flood risk assessment following the Sequential Test, and if required the Exception Test, it can be demonstrated that:

- *within the site, the most vulnerable development is located in areas of lowest flood risk unless there are overriding reasons to prefer a different location; and*
- *development is appropriately flood resilient and resistant, including safe access and escape routes where required, and that any residual risk can be safely managed, including by emergency planning; and it gives priority to the use of sustainable drainage systems.*

104. For individual developments on sites allocated in development plans through the Sequential Test, applicants need not apply the Sequential Test. Applications for minor development and changes of use should not be subject to the Sequential or Exception Tests but should still meet the requirements for site-specific flood risk assessments.

Department for Environment, Food and Rural Affairs
Sustainable Drainage Systems
Non-statutory technical standards for sustainable drainage systems
March 2015

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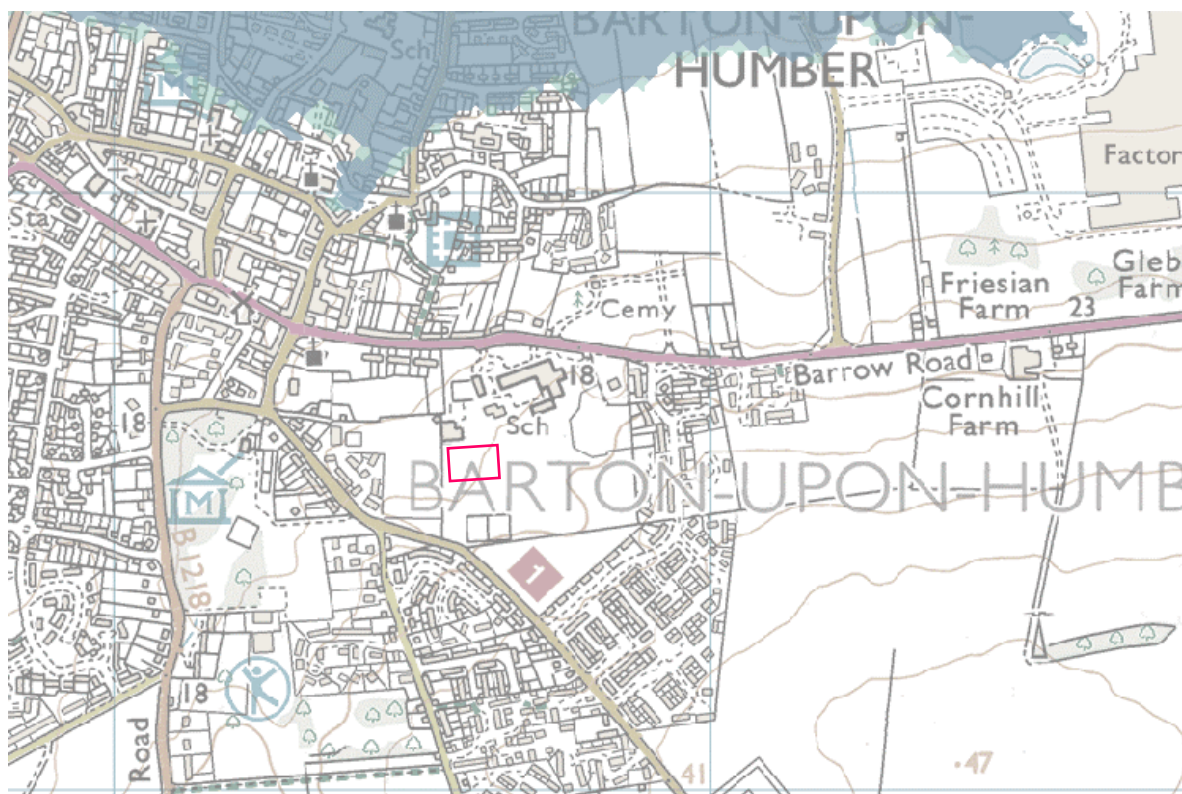
The surface water drainage scheme must be in accordance with the Non-Statutory Technical Standards for Sustainable Drainage Systems (March 2015) or any subsequent replacement national standards and unless otherwise agreed in writing by the Local Planning Authority, no surface water shall discharge to the public sewerage system either directly or indirectly.

In order to assist the application for full planning permission and to facilitate the satisfactory implementation and delivery of the project; an assessment of flood risk and a sustainable drainage proposal is required in accordance with national policies.

4.7.1 Fluvial / Tidal Flooding

The below illustration captured from the Environment Agency website at a scale of 1:10,000 illustrates that the proposed development area is located within a Category 1 flood zone. This zone comprises land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1%).

The likelihood of flooding from the rivers or the sea at the proposed development site is very low.



4.7.2 Risk of Flooding from Surface Water

The Environment Agency website confirms the proposed development area is at low to very low risk of flooding from surface water, which happens when rainwater does not drain away through the normal drainage systems or soak into the ground, but lies on or flows over the ground instead.

4.7.3 Risk of Flooding from Rivers and Sea

The Environment Agency website confirms the proposed development area is at no risk of flooding from the sea, which happens when there are high tides and stormy conditions.

4.7.4 Risk of Flooding from Reservoirs

The Environment Agency website confirms the proposed development area is at no risk of reservoir flooding, which is extremely unlikely to happen the area that could be flooded if a large reservoir were to fail and release the water it holds.

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4.7.5 Development Proposals and Flood Risk Vulnerability

Whilst the proposal is not situated within a Category 2 or 3 flood zone, best practice to compare the proposal against flood risk vulnerability classifications.

With reference to Table 2 of Planning Practice Guidance to the National Planning Policy Framework, the proposed development for an outdoor sports facility would be classified as Water Compatible Development.

An extract from Table 2 of the PPG for Flood Risk and Coastal Change is replicated below in Table 2.4 with the proposed development type highlighted:

Flood Risk Vulnerability Classification	
Vulnerability	Development types
Water Compatible Development	Flood control infrastructure Water transmission infrastructure and pumping stations Sewage transmission infrastructure and pumping stations Sand and gravel working Docks, marinas and wharves Navigation facilities Ministry of Defence defence installations Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location Water-based recreation (excluding sleeping accommodation) Lifeguard and coastguard stations Amenity open space, nature conservation and biodiversity, <u>outdoor sports and recreation and essential facilities such as changing rooms</u> Essential ancillary sleeping or residential accommodation for staff required by uses in this category, subject to a specific warning and evacuation plan
Source: Planning Practice Guidance - 2014	

4.7.6 Flood Risk Vulnerability and Flood Zone Compatibility

Based on the above assessment of the site being located within a Category 1 Flood Zone and classified as a 'water compatible development' and with reference to Planning Practice Guidance for 'Flood Risk and Coastal Change' to the National Planning Policy Framework (Table 3), the proposed development of this site would be considered "appropriate".

A copy of Table 3 is presented below to confirm the assessment above.

A sequential test is not required as the proposed development is located in a Flood Zone 1.

No exception test is required.

Flood risk vulnerability and flood zone compatibility					
Flood risk vulnerability classification	Essential infrastructure	Water compatible	Highly vulnerable	More vulnerable	Less vulnerable
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	✓	Exception Test required	✓	✓
Zone 3A	Exception Test required	✓	✗	Exception Test required	✓
Zone 3B	Exception Test required	✓	✗	✗	✗

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Key:
<ul style="list-style-type: none"> ✓ Development is appropriate * Development should not be permitted
Source: Technical Guide to the National Planning Policy Framework, March 2012

4.7.7 Sequential Test

As the site is located within a Flood Zone 1, a sequential test is not required; however it is worth noting the site is used (and historically designated) as a sports complex (active playing field) the development can be deemed to have passed the sequential test.

4.7.8 Current Conditions

The proposed development will replace part of an existing grassed playing field.

4.7.9 Surface Water Disposal Requirements

In accordance with the National Planning Policy Framework (NPPF) and the National Planning Practice Guidance (NPPG), the site should be drained on a separate system with foul water draining to the public sewer and surface water draining in the most sustainable way.

The NPPG clearly outlines the hierarchy to be investigated by the developer when considering a surface water drainage strategy. We would ask the developer to consider the following drainage options in the following order of priority:

- A. Into the ground (infiltration);
- B. To a surface water body;
- C. To a surface water sewer, highway drain, or another drainage system;
- D. To a combined sewer.

This is necessary to promote sustainable development, secure proper drainage and to manage the risk of flooding and pollution. This condition is imposed in light of policies within the NPPF and NPPG.

4.7.10 Surface Water Disposal Options

A. Soak away

During ground investigations undertaken in July 2016, the Devensian Till deposits were encountered as a cohesive material which is effectively impermeable.

On this basis, it is considered that the disposal of surface water via an infiltration system is not appropriate and connection to a local surface water (or combined) sewer must be found.

B. Surface Water Body

The closest water course is the River Humber trending in a general West to East route is location approximately 1950m North of the application site.

A direct connection to this water feature is not possible and on this basis; it is considered that the disposal of surface water via a water course is not appropriate.

C. Surface Water Sewer

Existing surface sewers (private) associated with school buildings and infrastructure are in relatively close proximity to the development site and on this basis it is considered that the disposal of surface water via a sewer is appropriate.

This option shall require the developer to gain agreement in writing by the Local Planning Authority, for surface water shall to discharge to the public sewerage system indirectly.

D. Combined Sewer

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There are no known existing combined sewers in close proximity to the development site and on this basis it is considered that the disposal of surface water via a sewer is not appropriate.

4.7.11 Surface Water Disposal Solution

The proposed development and associated surface drainage strategy from this site is such that the surface water will be managed and disposed of within the site boundary, thus complying with the Technical Guidance to the National Planning Policy Framework.

This drainage strategy will be designed to ensure no above ground flooding occurs up to and including the 1 in 30 year event as a minimum, with an assessment to demonstrate that the flood risk off-site is not increased during the 1 in 100 year event plus an allowance for climate change.

This is to enable the site to meet the recommendations of the non-statutory technical standards for sustainable drainage.

Development shall not begin until a detailed sustainable surface water drainage scheme for the site has been submitted to (and approved in writing by) the local planning authority.

The detailed drainage scheme shall demonstrate that the surface water generated by this development (for all rainfall durations and intensities up to and including the climate change adjusted critical 100 year storm) can be accommodated within the site boundary and disposed of to a local surface water sewer at a rate not exceeding 5l/s (equivalent Greenfield run off).

Surface water management and disposal performance will be achieved by the following physical implications to the development (the 3G Artificial Grass Pitch (AGP)):

1. Adequate attenuation (water storage) within the AGP pitch base (comprising a permeable granular sub-base) to ensure that excess volumes, which would be experienced during a critical storm event; do not bypass the control system.
2. Connection to the closest surface water sewer (private) via a Hydro-brake® Flow Control (or similar), limited to an equivalent Greenfield runoff rate at outlet (5l/s).

4.7.12 Surface Water Drainage Design

FIFA's Quality Concept for Football Turf (Handbook of Requirements January 2012 / 2015 Edition) requires a 3G artificial turf to provide water permeability (for outdoor uses) >180mm/hr and advises that to ensure adequate drainage of a field, all individual elements of the football turf should satisfy this requirement.

It is intended that a positive drainage scheme (land drainage); shall be installed beneath the 3G Artificial Grass Pitch (AGP) area comprising UPVC perforated carrier and lateral pipe drains.

The granular pitch substrate (typically consisting of Type 3 unbound (SHW 800 Series) to comply with BSEN 13285) is intended to provide onsite containment and attenuation within the granular sub-base, before surface water enters the agreed outfall.

The designed surface water drainage solution should be based upon the following criteria, to maintain satisfactory system performance:

- Provide adequate functionality over a period of twenty years.
- Ensure that surface water is removed from the surface area at a rate necessary to prevent surface flooding experienced during acute rain storms and to ensure the facility will not be lost through rain at the highest intensity which may be expected to occur either once every five years or through continuous rainfall of 50mm over a 24 hour period.
- Ensure that surface water is effectively removed from the facility construction to ensure that load bearing capacity of the substrate is not weakened by an increase in moisture content or becomes more susceptible to frost damage.
- Protect the installation from influences of groundwater or surface water from surrounding areas.
- Prevent the risk of uncontrolled flooding elsewhere (to land adjacent to the development).
- Comply with all applicable Sustainable Urban Drainage System (SUDS) requirements with attenuated flows (containment within the granular pitch sub-base) incorporated wherever necessary, without affecting the performance of the pitch.

4.7.13 Flood Compensation

Flood compensation measures will not be required as finished (floor) levels will not affect current flood plain storage onsite.

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4.7.14 Overland Flows

There is a risk of the critical storm event being exceeded, albeit this risk is considered very low.

In such an event the proposed drainage systems will become overwhelmed and overland flows could occur.

4.7.14 Foul Water Drainage Strategy

There will be no new foul water discharge from the proposed 3G Artificial Grass Pitch (3G AGP) development.

4.7.15 Surface Drainage Maintenance

The drainage system will be designed to minimise maintenance requirements, however, a full maintenance scheme will be established for those elements not being offered for adoption.

Maintenance operations will be carried out by Baysgarth School in perpetuity post development.

4.7.16 Site Drainage Proposals Conclusions

The disposal of a surface water via an indirect connection to a local surface water sewer, following agreement with Anglian Water; with a restricted flow rate equivalent to a Greenfield runoff rate to the agreed drainage outfall would be an appropriate drainage strategy.

This drainage strategy will be designed to ensure no above ground flooding occurs up to and including the 1 in 30 year event as a minimum, with an assessment to demonstrate that the flood risk off-site is not increased during the 1 in 100 year event plus an allowance for climate change.

The detailed drainage scheme shall demonstrate that the surface water generated by this development (for all rainfall durations and intensities up to and including the climate change adjusted critical 100 year storm) can be accommodated within the site boundary and disposed of to watercourse at a rate not exceeding 5l/s.

There will be no foul water discharge associated with the proposed development.

The surface water drainage from this site, post development, is such that the surface water will be managed and disposed of within the site boundary, thus complying with the Planning Practice Guidance for 'Flood Risk and Climate Change' to the National Planning Policy Framework.

Based on the above and providing the above strategies are adopted; the developed site will not contribute further to flood risk thus satisfying the principles of the National Planning Policy Framework.

4.8 National Planning Policy Framework (2012) Section 11 – Conserving and Enhancing the Natural Environment

Policy extract:

123. Planning policies and decisions should aim to:

- *avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development;*
- *mitigate and reduce to a minimum other adverse impacts on health and quality of life arising from noise from new development, including through the use of conditions;*
- *recognise that development will often create some noise and existing businesses wanting to develop in continuance of their business should not have unreasonable restrictions put on them because of changes in nearby land uses since they were established; and*
- *identify and protect areas of tranquility which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.*

125. By encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

4.8.1 Noise Impact

It is acknowledged that the application proposal would result in extended times of use of the external sports facility; particularly during winter months; which is resultant from an intensification of use made possible by the enhanced durability of 3G artificial grass playing surface in comparison to natural turf and especially during winter weather conditions and the introduction of an associated artificial (flood) light system.

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The proposed hours of operation for the new 3G Artificial Grass Pitch (AGP) are as follows:

Monday to Friday	0900 hours to 2200 hours
Saturday	0900 hours to 2000 hours
Sunday	0900 hours to 2000 hours

The nearest residential properties to the proposed 3G Artificial Grass Pitch (AGP) are situated on:

West	Nightingale Close with the closest house located approximately 115m from the AGP (to the building facade).
South	Caistor Road with the closest house located approximately 75m from the AGP (to the building facade).
East	Oak Drive with the closest house located approximately 105m from the AGP (to the building facade).
North	Barrow Road with the closest house located approximately 175m from the AGP (to the building facade).

The inclusion of neoprene washers (inserts) fitted to ball stop fence post / panel fixings to reduce panel rattle and vibration from ball impacting on perimeter ball stop fencing, will reduce noise emission created from use of the AGP.

Also, unlike a small ball-court, playing lines shall be permanently marked 3m minimum away from the pitch perimeter to mitigate balls impacting onto the fenced enclosure.

At 75m the closest residential properties to the South are sufficiently distant to the AGP to avoid an unacceptable impact by way of noise and the direct route from the AGP to residential building façades is screened by existing features associated with the school's playing field boundary (trees, vegetation and hedgerows of various species and maturity).

The closest residential properties to the North are sufficiently distant to the AGP and protected by school buildings as well as a dense area of trees and vegetation.

The closest residential properties to the West and East are sufficiently distant to the AGP to avoid an unacceptable impact by way of noise although the direct route is not obscured by any existing features other than garden boundaries.

Noise emission to be generated by use AGP and the effect to be experienced at nearby noise sensitive receptors is therefore not expected to adversely affect nearby residents by way of noise.

4.8.2 AGP Management

Baysgarth School will implement a community use management plan to ensure the facility is correctly operated.

This plan will provide a management structure for the facility is outlined below:

- Overall responsibilities
- Direct reporting systems
- Day to day management
- Training, staffing and staff development
- Maintenance and security
- Community use of facilities
- Community booking procedures
- Community operational procedures
- Local resident communication
- Onsite car parking for community users

To manage noise generated by use of the facility, the school will introduce a noise management plan with procedures to minimise the potential noise impact on local residents.

The school will establish a noise monitoring supervisor to ensure the detailed policies and procedures of the plan are adhered to.

The plan is considered to be a live document which may be revised during the operational stages in order to create an acceptable balance between the requirements for a successful sports facility and the protection of local residents' amenity.

The plan will ensure that:

- The nominated noise monitoring supervisor regularly monitors activity on the facility.
- The maximum user capacity of the facility is not exceeded.

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- Only pre-booked lettings under a signed lettings agreement will be permitted to use the facility. All clients as part of the lettings agreement will sign up to a Code of Conduct which includes arriving and leaving the site plus expectations whilst on site.
- The supervisor liaises with clients to ensure noise management policies and the Code of Conduct are adhered to.
- A clear and reliable mechanism is provided whereby noise complaints can be made and logged and acted upon by way of a formal complaints procedure.
- Liaison with stake holders and interested parties is undertaken to ensure the noise management plan remains effective and revisions are applied accordingly.

4.8.3 Artificial (Flood) Lighting Impact

The proposed 3G Artificial Grass Pitch (AGP) requires an artificial (flood) lighting system to satisfy the necessary and planned weekly usage for school and community participation.

The proposed artificial (flood) lighting systems will be operated during evenings of permitted use, after dusk and up to the approved curfew hour.

The permitted our of hours of use of the facility will be determined through the planning application process and the applicant wishes to accommodate hours of use in order to maximise football developmental outcomes; both during the day and during evenings and at weekends via pre-arranged and structured community access.

The following table illustrates an expected weekly plan of use with those hours of illumination use when floodlights in operation will be required:

Day	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
Monday															
Tuesday															
Wednesday															
Thursday															
Friday															
Saturday															
Sunday															

	Hours of use
	Hours of use with floodlights in operation (typical)

The artificial (flood) lighting proposal includes the following details:

Requirement	Detail provided
The precise location of the pitch, which should take account of the light spill given its proximity to, for example, any highway and any nearby residential properties.	Please refer to SSL2155 Appendix A Floodlighting Performance Results.
The types of sport to be played on the pitch and the standard of play - both of which will have an influence on the amount of illumination required.	<p>The type of football activities associated with the 3G Artificial Grass Pitch (AGP) include:</p> <ul style="list-style-type: none"> ▪ Over 18 and Adult Football ▪ Youth U11 / U12 ▪ Mini Soccer U9 / U10 ▪ Mini Soccer U7 / U8 ▪ Training <p>The standard of football activities includes FA affiliated junior / youth football (highest level of competition).</p>
Details of columns – number, height and finish.	<p>The proposed floodlight system comprises 6no. octagonal steel masts, mid-hinged, finished galvanised (Z275) self-coloured.</p> <p>15m high masts are tapered with a 346mm diameter shaft at the base and 102mm diameter shaft to the column top.</p> <p>Please refer to Appendix D 15m Floodlight Mast.</p>

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Details of luminaires – number, types, dimensions, finish and output of lamps fitted, to include manufacturer's technical information.	18no. Philips asymmetrical Optivision luminaires sized: <ul style="list-style-type: none"> ▪ 386mm high ▪ 352mm long ▪ 237mm wide Please refer to Appendix B Optivision Luminaire.
Details of any cowls/hoods/shades/baffles that maybe needed to control light spill and glare – number, dimensions and finish.	All luminaires have a zero upward light ration with the use of additional accessories (rear louvres) to limit overspill. Please refer to Appendix C Optivision Louvre The proposed vertical alignment of luminaires is a maximum 7° above the horizontal plane.
Plan showing pitch with the location/position of lighting columns and luminaires.	Please refer to drawing SSL2155 07 Proposed Floodlighting Scheme and SSL2155 Appendix A Floodlighting Performance Results, showing results of horizontal and vertical illuminance over the performance areas and spillage exceeding the facility perimeters.
Details of lighting set up – horizontal (rotation) and vertical (tilt) alignment of the luminaires, also to be shown on plan and elevation drawings.	Please refer to SSL2155 Appendix A Floodlighting Performance Results.
Details of lighting output, including levels of surface luminance on the pitch and overspill, i.e. off the pitch (manufacturers/supplier's calculations and diagrams should be provided separately and also to be overlaid on an OS base so that the impact on the surrounding area can be assessed).	Please refer to drawing SSL2155 07 Proposed Floodlighting Scheme and SSL2155 Appendix A Floodlighting Performance Results.

In designing a suitable floodlighting solution for the proposed development, several key specification issues had to be considered. These included the illuminance (Lux) level required, the environmental zone category for the site, the minimum mast height, the number and type of floodlights.

The task of designing the optimum floodlighting and external lighting design was undertaken using specialist design software (CalcuLuX Area 7.7.1.0) provided by Philips Lighting.

The details of how site issues were resolved are as follows:

4.8.3.1 Design Principal

A new lighting system should provide the following lighting standards, in accordance The Football Association (FA) (FIFA Class II) lighting requirements for varying types of play, which is as follows:

Use	Maintained average illuminance	Uniformity (Min / Ave)
Competition	>200Lux	>0.6
Cross Play	>120Lux	>0.6
Training	>120Lux	No requirement

These floodlight systems must be designed in such a way to allow each individual section of the pitch (e.g. lateral cross pitches) to be individually programmed to facilitate economical management and prevent over lighting to pitches areas when not in use.

(Lux level is the intensity of light as measured on a given surface taking into account the area over which the luminous flux is spread. For example, 1000 lumens which is the output of a given light source concentrated into an area of one square metre, would illuminate that square metre to 1000 Lux. If spread over an area of ten square metres, the same 1000 lumens light source would produce a dimmer illuminance of only 100Lux.)

In addition, the lighting system design seeks to comply with complimentary recommendations published within BS EN 12193:2007 Light and lighting. Sports lighting.

BS EN 12193 is the European standard that deals with sports lighting to ensure good visual conditions for players, athletes, referees, spectators and CTV transmission. Its objective is to provide recommendations and specify requirements for good quality sports lighting by:

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- Optimising the perception of visual information used during sports events
- Maintaining the level of visual performance
- Providing acceptable visual comfort
- Restricting obtrusive light

BS EN 12193 specifies lighting for indoor and outdoor sports events most practiced in Europe. It provides lighting values for the design and control of sports lighting installations in terms of illuminances, uniformity, glare restriction and colour properties of the light sources.

All the above requirements are meant to be as minimum requirements. It also gives methods by which these values are measured. For the limitation of glare, it also points out restrictions on the location of the luminaires for specific sporting activities.

4.8.3.2 Environmental Status

The environmental category was established by referring to The Institution of Lighting Professionals (ILP): Guidance Notes for The Reduction of Obtrusive Light GN01:2011. This document categorises the environment into five zones ranging from E0 (Protected) to E4 (City Centres).

The site at Baysgarth School would fall into Zone E2, which is rural surrounding with low district brightness, for example a village or relatively dark outer suburban locations.

The ILP design guidance for this environmental zone is as follows:

Table 2: Obtrusive Light Limitations for Exterior Lighting Installations – General Observers					
Sky Glow ULR [Max %]	Light Intrusion (into Windows) Ev [lux]		Luminaire Intensity I [candelas]		Building Luminance Pre-curfew
	Pre curfew	Post curfew	Pre curfew	Post curfew	Average L [cd/m ²]
2.5	5	1	7500	500	5

For further details of ILP design guidance please refer to Appendix E ILP 2011.

4.8.3.3 Floodlight Design

In order to meet the requirements of The Institution of Lighting Professionals: Guidance Notes for The Reduction of Obtrusive Light GN01:2011, the floodlighting system chosen uses a flat glass technology.

The solution has been designed to provide lighting specifically for the external sports facilities, which may be controlled accordingly to endeavour to reduce energy consumption and also potential impact on the surrounding environment.

The Philips OptiVision MVP507 is an asymmetric down lighting luminaire that combines compact dimensions with very high efficiency. Available with narrow, medium and wide beams for flexibility in application, it provides excellent control of spill light, glare and upward leakage of light. OptiVision MVP507 can accommodate metal halide lamps for good colour rendering.

Please refer to Appendix B Optivision Luminaire.



4.8.3.4 Mast Design

The mast height was calculated using the method detailed in the CIBSE guide LG4 “Sports Lighting”.

This uses angles projected from the centre of the pitch and the touchlines to produce a head frame location zone.

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When applied to this project the optimum mast height ranged from 12m to 18m.

A 15m mounting height was chosen for the new 3G Artificial Grass Pitch (AGP), as this will allow all luminaires to be mounted horizontally.

These masts heights will result in low vertical overspill and good uniformity on the playing surface to ensure that artificial lighting:

- Is directed fully downwards towards the playing pitch surface;
- Avoids sky glow;
- Achieves full cut-off as recommended by The British Astronomical Association's Campaign for Dark Skies.

By contrast, higher columns would require more intensive lighting needed to provide adequate results at ground level and lower column heights would result in a higher aiming angle for every luminaire, resulting in increased overspill and glare.

On this basis, 15m high mounting heights provide the most efficient solution and the proposed masts will offer a slim-line profile, which will minimise daytime impact.

Please refer to Appendix D 15m Floodlight Mast.

4.8.3.5 Lighting Performance

The lighting proposal is detailed within Appendix A Floodlighting Performance Results, which shows the mast locations, floodlight orientations, luminance levels on the pitch and projected overspill values.

The design for the 3G Artificial Grass Pitch (AGP) achieves values which meets the requirements of BS EN 12193 as follows:

Period	Property	Result
Initial 100hrs usage	Average illuminance Uniformity	285 Lux 0.60 Min / Ave
Maintained usage incorporating 0.8 maintenance factor	Average illuminance Uniformity	228 Lux 0.60 Min / Ave

All design calculations have been undertaken using an open, unobstructed site.

Design values of overspill will be further reduced by existing mature trees, adjacent buildings or natural screening.

The maintained luminance values for the floodlights are calculated using a maintenance factor of 0.8 to account for environmental conditions and depreciation of light output between cyclical maintenance, including bulk lamp change.

4.8.3.6 Obtrusive Light Calculation

The closest residential properties situated are identified on Appendix A Floodlighting Performance Results, in order to establish obtrusive light calculations.

The nearest residential properties to the proposed 3G Artificial Grass Pitch (AGP) are situated as follows:

West Nightingale Close
South Caistor Road
East Oak Drive
North Barrow Road

To these properties, light intrusion (into windows) and luminaire intensity are calculated as follows:

Residential property	Lighting Intrusion at ground level	Lighting Intrusion at 1.8m above ground level	Luminaire Intensity
West	<2 Lux	<2 Lux	990 cd
South	<2 Lux	<2 Lux	3111 cd
East	<2 Lux	<2 Lux	2162 cd
North	<2 Lux	<2 Lux	2594 cd

Lighting Intrusion is calculated at less than 5 Lux at ground level and at a height of 1.80m above ground level, which is below the pre-curfew and post curfew threshold for the environmental zone E2.

Luminaire intensity is calculated at less than the pre-curfew 7500 candela threshold for the environmental zone E2.

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All floodlights will be extinguished at the permitted curfew time and therefore, luminaire intensity will be 0 candela which is below the post-curfew 500 candela threshold for the environmental zone E2.

4.8.3.7 Planning Policy Context

Central Government guidance on lighting and planning is contained in the National Planning Policy Framework (NPPF) which came into force in March 2012.

Paragraph 7 of the NPPF defines Sustainable Development, which is the core principle of planning, setting out that there are three dimensions to sustainable development: economic, social and environmental.

Part of the environmental dimension of sustainable development is clearly stated to include contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to minimise pollution.

Pollution is defined within the NPPF as including: "Anything that affects the quality of land, air, water or soils, which might lead to an adverse impact on human health, the natural environment or general amenity. Pollution can arise from a range of emissions, including smoke, fumes, gases, dust, steam, odour, noise and light."

Perhaps most importantly with regard to light pollution, paragraph 125 of the NPPF also states that "By encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation".

Obtrusive light was made a Statutory Nuisance under the Clean Neighbourhoods and Environment Act 2005. The Council can take action against sources of intrusive light where these are shown to be causing a nuisance, for example a domestic floodlight shining into window in a neighbouring dwelling. In addition, conditions imposed on any planning consent for lighting must ensure that adequate control can be enforced. It is acknowledged that many lighting installations which may cause obtrusive light do not require planning permission or do not fall under the Act as a statutory nuisance.

4.8.3.8 Impact on Development

The lighting proposals are detailed proposal drawings and appendices; showing mast locations, floodlight orientations, illuminance levels on the pitch and projected overspill values.

The 3G Artificial Grass Pitch (AGP) design achieves a maintained average illuminance value of 228 Lux with a 0.60 uniformity in accordance The Football Association (FA) (FIFA Class II) lighting requirements for varying types of play.

The maintained illuminance values are calculated using a maintenance factor of 0.80. This takes into account light losses due to dirt accumulation on the floodlight front glass and lamp lumen depreciation, ensuring that the minimum requirements for safe play are achieved.

As less than 5 Lux vertical illuminance will be projected towards any residential property windows whilst floodlights are in operation, the proposed lighting systems will exceed the requirements for an environmental zone E2 location.

Luminaire intensity created whilst floodlights are in operation is below the threshold for the environmental zone E2 location.

Upward waste light will also be minimised and with floodlight elevations used 0% will be projected into the atmosphere. This will meet the recommendations of The Campaign For Dark Skies, an organisation who lobby for low light pollution lighting systems

4.8.3.9 Mitigation Measures

Obtrusive light, whether it keeps you awake through a bedroom window or impedes your view of the sky, is a form of pollution and can be substantially reduced without detriment to the lighting task.

How can I minimise the problem?

- Do not "over" light. This is a major cause of obtrusive light and is a waste of energy. There are published standards for most lighting tasks, adherence to which will help minimise upward reflected light.
- Dim or switch off lights when the task is finished. Generally a lower level of lighting will suffice to enhance the night time scene than that required for safety and security.
- Use specifically designed lighting equipment that minimises the upward spread of light near to and above the horizontal. Care should be taken when selecting luminaires to ensure that appropriate units are chosen and that their location will reduce spill light and glare to a minimum. Please remember that lamp light output in LUMENS is not the same as lamp wattage and that it is the former which is important in combating the problems of obtrusive light.

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- Consideration also has to be given to the issue of glare. The asymmetric distribution of the floodlights allows for a lower tilt angle from the horizontal, hiding the lamp and therefore reducing glare not only to players and spectators but also to any surrounding residents, motorists and wildlife. The maximum tilt angle for any floodlighting will be no more than seven degrees from the horizontal plane.

4.8.3.10 Monitoring Programme

On completion of the installation, the system will be tested and commissioned to ensure design levels are achieved and not exceeded. During the operational life cycle of the system, periodic lighting checks and assessments will be undertaken to ensure the installation continues to satisfy the requirements set out in the lighting design.

These assessment include:

- Lighting Levels to each individual area
- Overspill levels

4.8.3.11 Robustness of Analysis

Within the design calculations, the use of the model is based on the land being flat and has not taken into account the topographical survey, or any blockages that could have an impact on the lighting plan.

The results provided are the worst case in design format.

4.8.3.12 Lighting Assessment Conclusion

1. The proposed floodlighting system is specifically designed to fulfill sports lighting requirements and is particularly suited to applications where low light pollution is essential.
2. Performance of the proposed artificial lighting (floodlighting) systems satisfies the intended sporting applications and standards of play.
3. A 15m high mounting height to the 3G Artificial Grass Pitch (AGP) provides the most efficient solution and the proposed masts will offer a slim-line profile, which will minimise daytime impact.
4. The proposed Philips OptiVision MVP507 is an asymmetric down lighting luminaire will provide the optimum sports lighting solution, ensuring that light reaches the sports surface and not into the sky or polluting the environment.
5. Performance of the proposed artificial lighting (floodlighting) system complies with an Environmental Zone E2 (ILP) which is rural surrounding with low district brightness.
6. Light intrusion to the closest residential properties are below the threshold for an E2 environmental zone and as such, does not create an unacceptable impact by way of artificial lighting.
7. Luminaire intensity created whilst floodlights are in operation is below the threshold for the environmental zone E2 location and as such; does not create an unacceptable impact by way of artificial lighting.
8. All luminaires have a zero upward light ration with the use of additional accessories (rear louvres) to limit overspill and the proposed vertical alignment of luminaires is 7° maximum above the horizontal plane
9. Upward waste light will also be minimized, achieving full cut-off with 0% projected into the atmosphere. This satisfies the recommendations by The British Astronomical Association's Campaign for Dark Skies, an organisation who lobby for low light pollution lighting systems.
10. Use of the artificial (flood) lighting system within permitted times will be controlled by a photocell detector and timer switch to ensure that any lighting does not adversely impact neighbouring residential amenity.
11. Control switches and time clocks shall be installed to the floodlights to ensure they do not remain on any later than the permitted curfew hour and therefore mitigate impact to the surrounding environment.
12. Time clocks will be set to operate within a pre-programmed time including a seasonal changeover facility for BST and GMT.

The lighting scheme has been designed to minimise the impacts on surrounding areas outside of the 3G Artificial Grass Pitch (AGP), and given the location of the application site within an outer suburban area, we do not consider that the proposed lighting would result an unacceptable impact by way of artificial lighting on residential amenity.

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4.8.4 Ecology

On the presumption that trees adjacent to the Western perimeter of the 3G Artificial Grass Pitch (AGP) may support a local biodiversity (bat) population (given the provision of bat boxes to these trees within a recent application PA/2015/1241), it is necessary for a sensitive and considered lighting strategy to be implemented and managed during the operational phase of the proposed development.

It is acknowledged that the proposed artificial (flood) lighting system must be designed to minimise impacts on foraging and dispersing bats.

As such, a dark corridor along the Western site boundary should be established within the design scheme to allow the movement of bats across the site post-development and particularly along the Western edge of the site.

As illustrated within supporting application information, overspill from the lighting scheme reduces rapidly adjacent to the Western site boundary, thereby providing a darker corridor for any foraging and dispersing bats.

We welcome advice from the Council's Ecologist to this aspect of the lighting proposal and if it is deemed that further mitigation for protected species is required, whether a new planted corridor for foraging and dispersing bats should be considered elsewhere on site.

4.9 Design and Impact upon the Character and Appearance of the Surrounding Area

The proposed AGP comprises of artificial grass containing 60mm pile and partially in-filled with silica sand and granulate coloured green.

The location of the AGP to the South (the rear) of the school site and situated behind main school building will result in an ideal relationship with the new changing room building, an existing floodlit Multi Use Games Area (MUGA) and new floodlit skate park.

The AGP will be surrounded by the school's playing field to the West, South and East and is appropriate in a playing field environment.

Surrounding the perimeter of the AGP would be a ball stop fencing with open steel mesh and polyester powder coated moss green, six 15m high galvanised steel floodlight columns and a storage container dark green in colour.

This is the type of paraphernalia normally associated with an AGP.

Perimeter fencing would be a total of 4.5m high and dark green in colour which would assimilate into the character of the area.

It is not considered that the AGP or associated paraphernalia would be detrimental to, or out of keeping with, the character of the area.

The 3G Artificial Grass Pitch (AGP) design is in accordance with appropriate technical recommendations published in The FA Guide to 3G Football Turf Pitch Design Principles and Layouts.

4.9.1 Impact Mitigation

The design process for the proposed 3G Artificial Grass Pitch (AGP) has considered and incorporated a variety of features to assist in reducing the impact of the development to immediate neighbours and the local environment including:

Controlled hours of use	<p>Limitation of the lighting impact will be controlled by the strict management of permitted operating times. It is intended that time clocks will be installed to ensure lights are extinguished at the curfew hour every night of use.</p> <p>Time clocks will be set to operate within a pre-programmed time including a seasonal changeover facility for BST and GMT.</p> <p>Usage of the artificial (flood) lighting system will be solely within permitted times and these hours shall be controlled by a photocell detector and timer switch to ensure that any lighting does not adversely impact neighbouring residential amenity.</p>
Sympathetic appearance	<p>The finish of proposed artificial grass playing surfaces will offer a similar appearance to amenity grass / sports turf.</p> <p>The open steel mesh ball-stop fencing (polyester powder coated Dark Green RAL6005) will be discreet against a rural background.</p>

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	The 15m high floodlight masts will offer a slim-line profile, which will minimise daytime impact.
Acoustic / visual attenuation	Fence panels will be insulated from the posts using neoprene rubber washers to be fitted to every fence post / mesh fixing to aid noise reduction by reducing rattle and vibration from ball impacts. Also unlike a small ball-court, playing lines shall be permanently marked at a distance of 3m away from the pitch perimeter to mitigate balls impacting onto the fence.
Efficient floodlight design	The proposed artificial lighting design complies with the requirements for an Environmental Zone E2, which is low district brightness, for example a village or relatively dark outer suburban locations.

4.10 Adequate Impact Mitigation to Residential Neighbours

4.10.1 Residential Amenity

At present, sport may be played on the existing playing field throughout the year. It must therefore be noted that a certain level of impact already results to neighbouring residents through noise and general disturbance; although only during daylight.

The proposal requests usage of the 3G Artificial Grass Pitch (AGP) up to 22:00 hours throughout the week (Monday to Friday) and up to 20:00 on Saturdays and Sundays; which is necessary to accommodate the expected demand for the new facility.

During winter months especially, this proposal would represent intensification in the usage of the site by way of an artificial (flood) lighting system, and noise and disturbance felt by surrounding residents would be experienced up to the curfew hour.

It is important to understand that the proposed hours of use have been carefully considered with times limited to those needed by Hillcrest and its partner organisations and community groups to adequately satisfy the demand for football development; both during the day and during evenings and at weekends via pre-arranged and structured community access.

4.10.2 Visual Amenity – 3G Artificial Grass Playing Surface

The new 3G Artificial Grass Pitch (AGP) will be surfaced with 3G artificial grass coloured grass green. The visual appearance will be similar to existing fine sports turf and in keeping with a playing field environment.

4.10.3 Visual Amenity – Building level

The playing field and surrounding land topography falls gently toward the North West and finished (floor) levels to the 3G Artificial Grass Pitch (AGP) will reflect existing ground levels, with proposed longitudinal slopes and lateral profiles reduced and adjusted to accord with technical recommendations; resulting in a diagonal axis containing an approximate 1:100 (1%) maximum slope.

This is necessary to preserve unbiased ball roll characteristics for football activities.

4.10.4 Visual Amenity – Floodlight Masts / Amenity Lighting

The proposals incorporate the provision of six (6no.) 15m high floodlight masts mounted with associated luminaires around the perimeter of the 3G Artificial Grass Pitch (AGP).

The masts would be of a relatively slim profile tubular steel masts with galvanised (Z275) self-coloured finish.

These are new structures that would be visible from nearby residential properties and public areas and these new features are not uncommon in a playing field environment in which the application site is located.

It is accepted that whilst the height of the masts would result in features which are prominent within the site itself, they vital to provide artificial lighting for the planned use of the facility after dusk.

4.10.5 Visual Amenity – Ball Stop Fencing

The proposals incorporate perimeter fencing, which is necessary around the 3G Artificial Grass Pitch (AGP) to ensure the adequate long term protection of the valuable assets for a variety of vital reasons as follows:

- To contain balls within the pitch during training, competition and recreational activities
- To protect the playing surface from contamination that will severely compromise the longevity of the artificial grass playing surfaces

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- To help prevent unauthorised use and vandalism

The height of perimeter fencing is 4.5m comprising intended to provide protection and to prevent any ball escaping the playing areas.

In terms of the visual impact of high level fencing, the elevation will consist of a weld mesh design comprising see-through mesh, coloured dark green. This type is commonly installed around artificial sports pitches and permits light and views throughout, reducing the visual impact of the fencing.

Whilst the proposed fencing would introduce a new feature in this area of the playing fields, given the distances with residential properties; the type of ball stop fencing proposed would not give rise to unacceptable visual impacts to warrant refusal of the application.

We consider the proposals will not create any excessive levels of overbearing or overshadowing impact and fence heights are appropriate for the intended activities and would not appear incongruous within the playing field surroundings.

4.10.6 Visual Amenity – Size and Scale

The proposed 3G Artificial Grass Pitch (AGP) accords with The Football Association's technical guidelines and the facility size is limited to spatial requirements necessary to implement one multi-functional artificial grass football pitch with a variety of secondary pitch markings to support adult, youth and mini soccer and training areas, all within the same enclosed playing space.

On this basis, we consider the proposal is complimentary to the built features within the Baysgarth School campus and will not compromise with the views from any onlookers, looking into the sports complex.

4.11 Strategic Context

4.11.1 The Football Association National Game Strategy 2015 / 2019

The Baysgarth School project will contribute to the FA National Game Strategy by:

- Increasing participation (especially for girls)
- Developing our football workforce
- Making high quality football facilities accessible to grass roots clubs

This project is an excellent example of where a new 3G Artificial Grass Pitch (AGP) can deliver facilities in an area of strong local need, directly in line with the strategy.

This project is supported by a well thought out and strategic football development plan that will provide a wide range of coaching and participation opportunities for people of all ages and abilities in the Barton-upon-Humber and North Lincolnshire area.

With Baysgarth School as the key community football delivery partner, this project will support the school to deliver the football development plan which is focused on all four of the key areas identified by the national game strategy.

4.11.2 The Football Association's Facilities Strategy

The National Facilities Strategy outlines plans for £150m of investment, including improving 3,000 grass pitches, building 100 new artificial pitches and refurbishing 150 existing artificial pitches.

The strategy was developed after FA research found that "poor facilities" was the most pressing issue facing the grassroots game, with 84% of respondents raising the concern.

The FA's 2011 Big Grassroots Football Survey found that regular participants want improved pitches (both grass and artificial), floodlighting, changing facilities and toilets, for both playing and training with their clubs.

The strategy aims to ensure all partners work together to improve football facilities and protect them for future generations and over the next three years aims to deliver in excess of £150m capital funding (through Football Foundation) into facility improvements across the National Game in line with identified priorities:

- Natural grass pitches improved – target: 3000
- **A network of new Artificial Grass Pitches built – target: 100**
- A network of refurbished Artificial Grass Pitches – target: 150
- On selected sites, new and improved changing facilities and toilets
- Continue a small grants programs designed to address modest facility needs of clubs
- Ongoing support with the purchase and replacement of goalposts

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This project is an excellent example of where a new 3G Artificial Grass Pitch (AGP) can deliver facilities in an area of strong local need, directly in line with the strategy.

4.12 Sport England

Sport England will be a statutory consultee on this planning application as the proposal affects a playing field.

The following details are provided to enable Sport England's informed assessment of whether the proposed benefits to sport associated with development would be sufficient to outweigh the detriment associated with the impact on the playing field and satisfy exception policy E5 of Sport England's playing fields policy 'A Sporting Future for the Playing Fields of England 1997'.

This policy statement defines in planning terms what is considered a 'playing field', which is; the whole of a site that encompasses at least one playing pitch. A playing pitch is a delineated area, which together with any run off is of 0.2 hectares or more. Playing pitches may have a grass surface or an artificial one.

The aim of the policy is to ensure that there is an adequate supply of quality pitches to satisfy the current and estimated future demands of the pitch sports.

The following details are provided to enable an assessment:

Requirement	Detail provided
Impact the proposed development would have on playing pitch provision including proposed summer / winter playing pitches	<p>The application site is presently a grass playing field situated at Baysgarth School.</p> <p>This proposal seeks to replace a proportion of an existing playing field with a 3G Artificial Grass Pitch (AGP) and associated perimeter ball-stop fencing, hard standing areas for pedestrians and maintenance access and an artificial (flood) lighting system.</p> <p>It is acknowledged that the removal of an existing usable playing field to enable the development of the proposed 3G Artificial Grass Pitch (AGP) is unavoidable.</p> <p>Baysgarth School is of particular importance to the development of sport in the local area and this is the preferred site under the ownership of the applicant available to implement this proposal.</p> <p>The preferred location will result in convenient player and pedestrian access as well as effective management of the proposed 3G Artificial Grass Pitch (AGP).</p> <p>The proposed AGP will be sited close to existing onsite facilities; providing convenient access to and from changing rooms offering changing accommodation and administration facilities.</p>
Existing community use of the playing field	<p>Barton Juniors FC Barton United Juniors FC</p>
Community use of the proposed sports facility	<p>It is intended that the resultant facilities would not only be used by Baysgarth School, but also by partner organisations and community groups from the surrounding North Lincolnshire area to gain the maximum football developmental outcomes; both during the day and during evenings and at weekends via pre-arranged and structured community access.</p> <p>The development of an AGP following The Football Association's technical guidelines will especially enable children and young adults to play on appropriately sized pitches with appropriately sized goals, encouraging greater touches of the ball and an increased involvement in the game to enable skill development. The intention is that young players will develop better technical and decision-making skills from a younger age.</p> <p>The nature and layout of the facility will fully accommodate over 18 and adult football, under 11/12's (based on a 9v9 format), under 9/10's (based on a 7v7 format) and under 7/8's (based on a 5v5 format) as well as several training areas within the pitch footprint.</p> <p>This proposal would meet with the aims of national and local policies and would provide much needed improved sports facility at Baysgarth School.</p>

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	<p>The AGP will support FA affiliated junior / youth football (highest level of competition), along with mid-week training and coaching activities.</p> <p>All existing users of the playing field will be adequately accommodated within the site and the proposed facility is supported by future users and community football clubs / organisations have been identified as partner community users of the proposed facility including:</p> <p>Barton Juniors FC Barton United Juniors FC</p> <p>It is anticipated the new AGP will be used up to 85 hours per week.</p> <p>The impact on the existing playing field land will increase the quantity of playing pitches on site, as the AGP will be able to accommodate multiple junior football and mini soccer pitches within the same enclosed playing space.</p>
<p>Community access formally secured through a community use agreement</p>	<p>Community use agreements with key partners will be established and managed on a formal basis to facilitate delivery of the Football Development Plan.</p> <p>The provision of the new external 3G Artificial Grass Pitch (AGP) will provide increased usage in comparison to the existing grassed pitch during the daytime and evenings.</p> <p>This extended use is possible because the proposed floodlit 3G Artificial Grass Pitch (AGP) is more resilient during winter weather conditions and with new floodlights, evening activities will enable the facility to be used to its full potential.</p> <p>The AGP also avoids close season maintenance works.</p> <p>Whilst the proposal would not provide new space, it would provide an enhanced facility which would enable sport to be played throughout the year whereas at present the grass playing field can only be used during periods of good weather.</p>
<p>Sport related benefits of the proposed artificial grass pitch for the applicant and the community</p> <p>This explanation should provide detail on the deficiencies of the existing facilities and set out how the new facilities will address such deficiencies and help with the delivery of sport and meet community facility needs</p> <p>Furthermore, the explanation should provide details regarding which sports the new artificial grass pitch will accommodate</p>	<p>The Barton-upon-Humber and North Lincolnshire area has limited access to state of the art 3G Artificial Grass Pitches (3G AGPs) and this proposal will contribute to satisfying high demand for training and competition football.</p> <p>This site has been strategically identified by The Football Association and Lincolnshire Football Association.</p> <p>The Football Association has prioritised this development and has identified a need for improvement in football facilities within the Barton-upon-Humber and North Lincolnshire area to help deliver national strategies for grassroots football.</p> <p>The proposed 3G AGP will accord with Sport England's and The Football Association's technical design guidance for 3G Artificial Grass Pitches (3G AGPs).</p> <p>The proposed facility does allow for adequate storage of goals and maintenance equipment, changing provision and access to allow for community use.</p> <p>The provision of the 3G Artificial Grass Pitch (AGP) could be used continuously throughout the year and intensively due to its artificial grass surface and floodlighting.</p> <p>The design of the facility would allow affiliated competitive football matches to be played on the surface which would help reduce the pressure when grass pitches in the area are unavailable.</p> <p>The proposed AGP would potentially help address a local sports facility need and the provision of an AGP would reduce the need for residents to travel to facilities outside of the area.</p> <p>In addition, a football development programme will be implemented by the school and club partners which would enable FA programmes to be delivered on the proposed AGP which includes:</p>

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	<p>Coaching Referee training Volunteering Women and girls football Disability football</p> <p>The proposed AGP would make a significant contribution towards addressing the unmet demand for modern football facilities and will allow Baysgarth School and partner football clubs to focus their training in one venue and provide access during peak community use periods and gain greater control over facility availability and pricing.</p> <p>The Baysgarth School project will support Sport England's key goals in the following ways:</p> <ul style="list-style-type: none"> ▪ Increasing the number of people playing sport for at least 30 minutes once a week ▪ Developing new teams and participation opportunities ▪ Recruiting new players to all football formats ▪ Providing quality training and match play facilities ▪ Achieving growth in adult participation ▪ Providing juniors supported pathways into adult teams ▪ Providing adult teams with affordable facilities in North Lincolnshire ▪ Improving the transition from school into club sport ▪ Enhance school to club links ▪ Raising the percentage of young adults who play sport once a week ▪ Supporting school and club teams ▪ Developing secure pathways into adult football ▪ Creating pathways from recreational football into clubs
<p>Explanation of which sports the new artificial turf pitch will accommodate</p>	<p>With football being the targeted sport, the appropriate surface choice is 3G artificial grass containing a 60mm pile (this being regarded by The Football Association as the most suitable artificial playing surface for community football and youth development).</p> <p>Sport England guidance** describes this as a 'preferred football surface' and capable of high level competition / training (national/international).</p> <p><i>**Sport England's guidance document 'Selecting the Right Artificial Surface for Hockey, Football, Rugby League and Rugby Union' Issue 002 / December 2010.</i></p>
<p>Proposed surface type</p>	<p>3G artificial turf containing a 60mm pile.</p>
<p>Sustainability</p>	<p>Arrangements to ensure the long term maintenance of the facility will be established, along with a necessary sinking fund to ensure the long term benefit of the facility and the appropriate replacement of the artificial surface, floodlights and pitch furniture at the end of life cycles,</p>
<p>Accurate site plans (to scale) showing the existing and (if applicable) proposed winter and summer playing pitch layouts on the playing field.</p>	<p>The application site is located onto an existing grassed playing field used solely for football training and matches.</p> <p>Due to the generous size of the playing field, all other sports (winter and summer) will remain unaffected to satisfy winter and summer curriculum sport as illustrated on the following drawings:</p>

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This information is required in order to make an informed assessment of what impact the proposed development would have on playing pitch provision.	SSL2155 01 Site Location Plan SSL2155 03 Proposed site Plan
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On the basis of the above justification, we consider the proposals would give rise to a considerable benefit to the wider community through the provision of an enhanced playing facility.

We request the proposals are accepted subject to an agreement that adequate playing pitches may be retained post development and that the proposals provide satisfactory benefit to the loss of an existing playing pitch.

Given the above details, we hope Sport England will agree that the proposed development is acceptable under the following exception policy:

E5 – The proposed development is for an indoor or outdoor sports facility, the provision of which would be of sufficient benefit to the development of sport as to outweigh the detriment caused by the loss of the playing field or playing fields.

4.13 Design Standards

In terms of design standards, the schedule of works necessary to implement the proposal are designed in accordance with, and must be constructed in full compliance with; the following sources of technical guidance and performance quality standards which are appropriate to external artificial sports facilities:

4.13.1 3G Artificial Grass Pitch (3G AGP)

- The Football Association (FA) Guide to 3G Football Turf Pitch Design Principles and Layouts.
- Federation Internationale de Football Association (FIFA) Quality Concept for Football Turf – Handbook of Requirements (October 2015).
- Sport England Design Guidance Note 'Artificial Surfaces for Outdoor Sport – updated guidance for 2012.
- Sport England's guidance document 'Selecting the Right Artificial Surface for Hockey, Football, Rugby League and Rugby Union' Issue 002 / December 2010.

4.13.2 Ball Stop Fencing

- BS EN 15312:2007 A1:2 Free access multi-sports equipment – Requirements, including:
 - Clause 5.5.1.2.1 Resistance to repeated impact of footballs
 - Clause 5.5.1.2.2 Very intense forceful impact resistance to player's kicks

4.13.3 Goals

- BS 8462:2005+A2:2012 Goals for youth football, futsal, mini-soccer and small-sided football.
- BS 8461:2005+A1:2009 Football goals. Code of practice for their procurement, installation, maintenance, storage and inspection.
- BS EN 748:2004 Playing field equipment. Football goals. Functional and safety requirements, test methods.

4.13.4 Floodlights

- The Football Association (FA) Guide to Football Turf Pitch Design Principles and Layouts (FIFA's Class II for Non – Televised events (4))
- BS EN 12193:2007 Light and lighting. Sports lighting
- The Institution of Lighting Professionals (ILP): Guidance Notes for The Reduction of Obtrusive Light GN01:2011

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4.13.5 Generally

- Works must comply with current Building Regulations and British / European Standards applicable to the proposal

4.14 Archaeological Assessment

An archaeological desk based assessment has not been undertaken during project development stages, however we understand via a recently planning application at the school, that the application site lies within an area where archaeological remains are anticipated and records show that the application site is located in area where Anglo-Saxon settlement remains have been found and there is the potential that any below-ground construction works in this area will encounter archaeological deposits.

In compliance with policy HE9 of the North Lincolnshire Local Plan because the site is of archaeological significance, we would welcome the provision for archaeological monitoring and recording programme to be accommodated by conditions attached to planning permission.

A programme of archaeological work may then be carried out pre commencement, so that any remains that might be uncovered by the development can be properly identified and recorded.

We understand this programme should comprise monitoring, excavation and recording during any ground disturbance associated with the construction of the dwellings, followed by post-excavation assessment reporting, analysis and publication of results as required.

This work must be undertaken by a suitably qualified archaeological contractor in accordance with an agreed Written Scheme of Investigation (WSI); in accordance with the relevant Institute of Archaeologists' Standards and Guidance and relevant Historic England professional guidelines.

4.15 Ground Investigation Report

An ground investigation was completed during project development stages in February 2016 to consider the compatibility of the proposed 3G Artificial Grass Pitch (AGP) replacing part of the school's existing grassed playing field and overtaking an existing Multi Use Games Area (MUGA).

A summary of findings is as follows:

Aspect	Result
Ground conditions / strata	Exploratory excavations generally encountered a covering, approximately 0.15m to 0.41m thick, of Topsoil overlying soils considered to be Devensian Till Topsoil comprised brown clayey to very clayey gravelly sand. Gravel consisted of chalk and sandstone. Devensian Till soils comprised brown or orange brown stiff to very stiff high to very strength, slightly sandy to very sandy clay
Groundwater	No groundwater inflows were observed in any of the exploratory excavations
Infiltration	The Devensian Till deposits were encountered as a cohesive material which is effectively impermeable An indicative infiltration test was undertaken in HP01, however no water dissipated over the course of 100 minutes On this basis, the near surface soils are considered incapable of disposing of storm water via infiltration systems
Formation level	It is anticipated that the proposed artificial sports pitch will be located at or about existing ground levels with formation located on Devensian Till It is recommended that all Topsoil material is fully removed from within the footprint of the proposed pitch
Engineering assessment – Floodlights	In Soiltechnics opinion the naturally deposited Devensian Till will adequately support the proposed pad foundations for the flood light bases The deposits comprise slightly sandy to very sandy clays consistently across the footprint of the proposed pitch.

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	<p>Soiltechnics understand the level of the proposed pitch will be reduced by current Topsoil depths (up to 0.4m)</p> <p>Laboratory testing indicates the soils are low volume change potential and thus, foundations should extend a minimum of 0.75m depth below proposed ground level subject to penetrating the natural soils by a minimum of 0.3m</p> <p>It is considered that foundations will be remote from major vegetation at the site, avoiding the requirement to potentially deepen excavations</p> <p>The near surface Devensian Till exhibit a degree of plasticity and potentially adopting a conservative approach, Soiltechnics assessment of bearing values is based on the assumption that the soils exhibit cohesion</p> <p>Calculations, based on a conservative undrained shear strength of say 100kN/m² (derived from measured insitu shear strengths taken below proposed founding levels), indicate an Ultimate Limit State (ULS) resistance of 630kN/m², with a Serviceability Limit State (SLS) resistance of 180kN/m² for a 1m x 1m pad foundation, with a view to limiting total settlements to acceptable values</p>
Engineering assessment – AGP base	<p>Soiltechnics recommend an in situ CBR of 3% derived from shear strength data be utilised for design purposes and reassessed during construction</p> <p>The fact that the clay subgrade soils are likely to be deemed frost susceptible will probably be the overriding criteria for pavement foundation design purposes</p>
Sulphate classification	<p>A summary of the design sulphate class, characteristic value of pH and assessment of groundwater mobility is provided below which has been utilised to determine the ACEC class for the Devensian Till with reference to table C1 of SDI: 2005 is provided within the ground investigation report</p>
Contamination	<p>A full environmental risk assessment is considered outside Soiltechnics brief</p> <p>Based however on a limited desk study and in consideration of potential sources of contamination and pathways to the site, human receptors of the developed pitch (end users and construction operatives) are <u>not</u> considered to be at substantial risk of harm from chemical contamination</p> <p>A detailed desk study and source-pathway receptor model would be required to confirm this risk</p>
Utilities search	<p>Asset maps confirm the subject area is free from conflict with any underground plant</p>

4.16 Conclusions

The proposed development will not cause any significant harm to the character of the area or have a detrimental impact on the private amenity of the adjoining residents due to an undue impact from noise and light pollution.

Traffic movement to and from the proposed 3G Artificial Grass Pitch (3G AGP) will be such that they would not overlap or create undue congestion within the surrounding vicinity of the application site and therefore not result in an increase in demand for off-street parking or have a detrimental impact on highway safety.

The proposed AGP would be available for use by partner organisations and community groups as well as Baysgarth School.

The proposed AGP would make a significant contribution towards addressing the unmet demand for modern football facilities and will allow the Baysgarth School and partner football clubs to focus on training in one venue and provide access during peak community use periods and gain greater control over facility availability and pricing.

The proposed AGP will contribute to the achieving The Football Association's National Game Strategy 'Developing Football for Everyone' and is supported with a robust sustainable business plan, satisfying training needs, mini soccer and competitive matches.

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In view of the above justification and having been assessed in the light of relevant planning policies and material considerations, we request this proposal is accepted.

In conclusion:

- The proposed 3G Artificial Grass Pitch (AGP) will replace existing grass pitch provision with better quality provision, thereby providing access to greater quantity of provision in a suitable location and supported by effective and appropriate management arrangements; whilst implementing best practice construction techniques to minimise waste and pollution; in accordance with Achieving Sustainable Development of the National Planning Policy Framework (2012).
- The proposal would give rise to a considerable benefit to the wider community through the provision of an enhanced playing facility and the opportunity for usage throughout the year, in accordance with Section 8 – Promoting Healthy Communities of the National Planning Policy Framework (2012).
- The proposal would ensure that surface water run-off is effectively managed and does not increase flood risk elsewhere, in accordance with Section 10 – Meeting the Challenge of Climate Change, Flooding and Coastal Change of the National Planning Policy Framework (2012).
- The proposal would ensure that noise emission created by use of the development is not expected to adversely affect nearby residents by way of noise, in accordance with Section 11 – Conserving and enhancing the natural environment of the National Planning Policy Framework (2012).
- The proposal would ensure that performance of the proposed artificial lighting (floodlighting) system complies with an Environmental Zone E2 (ILP) which is rural surrounding with low district brightness, for example a village or relatively dark outer suburban locations, in accordance with Section 11 – Conserving and enhancing the natural environment of the National Planning Policy Framework (2012).
- Equally, the proposal satisfies relevant sections of North Lincolnshire Council's planning policies.
- The proposal satisfies Sport England's E5 – The proposed development is for an indoor or outdoor sports facility, the provision of which would be of sufficient benefit to the development of sport as to outweigh the detriment caused by the loss of the playing field or playing fields.
- The 3G Artificial Grass Pitch (AGP) and associated facilities would not result in an unacceptable impact upon the character, appearance or visual amenity of the surrounding area. The proposal will complement the immediate surroundings within the sports complex and will not appear inappropriate to any view looking into the Baysgarth School campus.
- The proposal would not result in an unacceptable impact to any residential amenity.
- The proposal provides adequate on-site parking and necessary traffic management to meet the needs of the development and would not result in any harm to the safety of the surrounding public highway network.

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