

SPORTS MITIGATION STRATEGY FOR POYNTON

JULY 2021

QUALITY, INTEGRITY, PROFESSIONALISM

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GLOSSARY

3G	Third Generation (artificial grass pitch)
AGP	Artificial Grass Pitch
BCGBA	British Crown Green Bowling Association
BFS	Built Facilities Strategy
CC	Cricket Club
CCCB	Cheshire County Cricket Board
CFA	Cheshire Football Association
ECB	England & Wales Cricket Board
EH	England Hockey
ESAR	Everybody Sport & Recreation
HC	Hockey Club
FC	Football Club
KKP	Knight Kavanagh & Page
LFFP	Local Football Facility Plan
LPS	Local Plan Strategy
LTA	Lawn Tennis Association
NGBs	National Governing Bodies of Sport
NPPF	National Planning Policy Framework
PPS	Playing Pitch Strategy
RFU	Rugby Football Union
RUFC	Rugby Union Football Club
SADPD	Site Allocations and Development Policies Document
STRI	Sports Turf Research Institute
SuDs	Sustainable Drainage Solutions
U	Under

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PART 1: INTRODUCTION

- 1.1 This is a Sports Mitigation Strategy relating to numerous development proposals that will potentially impact on sports facilities in Poynton, as identified in Cheshire East Council's emerging Site Allocations and Development Policies Document (SADPD). It has been commissioned by Everybody Sport & Recreation (ESAR).
- 1.2 The aim of the study is to present a comprehensive overview as to how, across the proposed allocations, a positive strategy for sports investment can be developed and a net dividend in terms of provision gained. Proper regard must therefore be had to the National Planning Policy Framework (NPPF) and Sport England's Playing Fields Policy, whilst the needs identified in Cheshire East's Playing Pitch Strategy (PPS), Built Facilities Strategy (BFS) and Local Football Facilities Plan (LFFP) must be accounted for.
- 1.3 The SADPD proposes to allocate four sites for development in Poynton, all of which are the focus of this report:
 - ◀ Site PYT 1: Poynton Sports Club
 - ◀ Site PYT 2: Land north of Glastonbury Drive
 - ◀ Site PYT 3: Land at Poynton High School
 - ◀ Site PYT 4: Former Vernon Infants School

Consultation

- 1.4 To inform the Sports Mitigation Strategy, discussions have taken place with ESAR, Cheshire East Council and ANSA, as well as Sport England and relevant Regional and National Governing Bodies of Sport (NGBs). These were selected based on the provision at the sites and the sports that are catered for (or that could be catered for).

In full, the list of consultees is as follows:

- ◀ ESAR
 - ◀ Cheshire East Council
 - ◀ ANSA
 - ◀ Sport England
 - ◀ Football Foundation
 - ◀ Cheshire Football Association (CFA)
 - ◀ England & Wales Cricket Board (ECB)
 - ◀ Cheshire County Cricket Board (CCCB)
 - ◀ Rugby Football Union (RFU)
 - ◀ England Hockey (EH)
 - ◀ Lawn Tennis Association (LTA)
 - ◀ England Netball
 - ◀ British Crown Green Bowling Association (BCGBA)
 - ◀ England Lacrosse
- 1.5 Discussions centred around the current supply and demand aspects at each of the sites as well as in the wider area, before concentrating on what would likely be required in terms of mitigation to ensure no future objections.

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Sports Turf Research Institute

- 1.6 As part of the study, Sports Turf Research Institute (STRI) has been commissioned to understand the deliverability, affordability and potential timescales related to the possible mitigation measures. Primarily, this involved a detailed site assessment of the Glastonbury Drive site but also included an inspection and analysis of the other sites. This was in order to understand any issues that may arise from the development proposals and to test a variety of prospective solutions.
- 1.7 The assessment of land north of Glastonbury Drive considered a detailed analysis of the ground conditions (including drainage and topography) of the land proposed for playing field land and the identification of any constraints that could prevent development or that could affect playing pitch quality.

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PART 2: POLICY AND CONTEXT

- 2.1 This section of the report summarises national and local policies and strategies that relate to the Sports Mitigation Strategy and the relevant proposed allocations; these should be considered and adhered to in order to ensure that there are no future challenges.

National Planning Policy Framework (2019)

- 2.2 The NPPF paragraph 97 states that 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.

Sport England Playing Field Policy

- 2.3 Sport England is a statutory consultee on developments impacting on playing field provision (and accompanying ancillary provision) and it will object to proposals unless at least one of its five policy exceptions is met. The exceptions are:
- ◀ **Exception 1:** Excess of provision - a robust and up-to-date assessment has demonstrated, to the satisfaction of Sport England, that there is an excess of playing field provision in the catchment, which will remain the case should the development be permitted, and the site has no special significance to the interests of sport.
 - ◀ **Exception 2:** Ancillary development - the proposed development is for ancillary facilities supporting the principal use of the site as a playing field and does not affect the quantity or quality of playing pitches or otherwise adversely affect their use.
 - ◀ **Exception 3:** Land incapable of forming part of a pitch - the proposed development affects only land incapable of forming part of a playing pitch and does not:
 - ◀ reduce the size of any playing pitch;
 - ◀ result in the inability to use any playing pitch (including the maintenance of adequate safety margins and run-off areas);
 - ◀ reduce the sporting capacity of the playing field to accommodate playing pitches or the capability to rotate or reposition playing pitches to maintain their quality;
 - ◀ result in the loss of other sporting provision or ancillary facilities on the site; or
 - ◀ prejudice the use of any remaining areas of playing field on the site.
 - ◀ **Exception 4:** Replacement provision of equivalent or better quality and quantity - the area of playing field to be lost as a result of the proposed development will be replaced, prior to the commencement of development, by a new area of playing field:
 - ◀ of equivalent or better quality, and
 - ◀ of equivalent or greater quantity, and
 - ◀ in a suitable location, and
 - ◀ subject to equivalent or better accessibility and management arrangements.
 - ◀ **Exception 5:** New sports provision benefit outweighs the loss of the playing field - the proposed development is for an indoor or outdoor facility for sport, the provision of which would be of sufficient benefit to the development of sport as to outweigh the detriment caused by the loss, or prejudice to the use, of the area of playing field.

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Cheshire East Local Plan

- 2.4 The Local Plan Strategy (LPS), adopted 2017, is the first part of the Council's Local Plan and sets out the overall planning framework for the Borough between 2010 and 2030 including for the provision of at least 36,000 additional homes. The policy that most specifically relates to sport is Policy SC 2 (Indoor and Outdoor Sports Facilities), as set out below.

Policy SC 2 – Indoor and Outdoor Sports Facilities

- 2.5 In order to provide appropriate indoor and outdoor sports facilities for the communities of Cheshire East, the Council will:
- ◀ Protect existing indoor and outdoor sports facilities, unless:
 - ◀ They are proven to be surplus to need (as identified in an adopted and up to date needs assessment); or,
 - ◀ Improved alternative provision (a full quantity and quality replacement to accord with paragraph 74¹ of the NPPF and Sport England policy) will be created in a location well related to the functional requirements of the relocated use and its existing and future users; or,
 - ◀ The proposal would not result in the loss of an area important for its amenity or contribution to the character of the area in general.
 - ◀ Support new indoor and outdoor sports facilities where:
 - ◀ They are readily accessible by public transport, walking and cycling.
 - ◀ Proposed facilities are of a type and scale appropriate to the size of the settlement.
 - ◀ They are listed in an action plan in any emerging or subsequently adopted PPS or BFS subject to the criteria in the policy.
 - ◀ Make sure that major residential developments contribute, through land assembly and financial contributions, to new or improved sports facilities where development will increase demand and/or there is a recognised shortage.

Cheshire East Site Allocations and Development Policies Document

- 2.6 The SADPD will form the second part of Cheshire East Council's Local Plan, supporting the policies and proposals in the LPS by providing additional, non-strategic policy detail and allocating additional sites, where necessary, to accommodate the level of growth anticipated for specific uses and areas within the settlement hierarchy left over from the LPS. Following consideration of the responses received to the initial Publication Draft SADPD in 2019, a revised document was published to invite further representations in October 2020. The Council is in the process of submitting the SADPD for examination following the decision made by full Council on 19 April 2021.
- 2.7 Policy REC 1 in the Revised Publication Draft SADPD references green and open spaces, including outdoor sports facilities, whilst Policy REC 2 relates to indoor sport facilities.

Policy REC 1 – Green/open space protection

- 2.8 Development will not be permitted that would result in the loss of green/open space (which includes school playing fields), which has recreational or amenity value. This includes:
- ◀ Existing areas of green/open space including those shown on the policies map.
 - ◀ Incidental open spaces/amenity areas too small to be shown on the policies map.
 - ◀ New green/open spaces provided through new development yet to be shown on the policies map.

¹ Following an update to the NPPF, this now refers paragraph 97.

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2.9 Additionally, development proposals that involve the loss of green/open space will not be permitted unless:

- ◀ An assessment has been undertaken that has clearly shown the green/open space is surplus to requirements; or
- ◀ It would be replaced by equivalent or better green/open space in terms of quantity and quality and it is in a suitable location; or
- ◀ The development is for alternative sports and recreational provision, the benefits of which clearly outweigh the loss.

Policy REC 2 – Indoor sport and recreation implementation

2.10 LPS Policy SC 2 requires all major housing developments to contribute towards indoor sport and recreation facilities. Developer contributions should be provided where new development will increase the demand for such facilities on the basis set out in the table below and taking account of the Council’s Indoor Built Facilities Strategy.

2.11 For the provision of new swimming pools and sports hall, the Sport England Facility Calculator model should be used or its subsequent alternative. For health and fitness provision (including studio space), need will be calculated based on the level of additional demand, using Sport England’s Active People Survey data or an equivalent assessment tool.

2.12 Contributions should be directed to the nearest accessible facility to the development. Where there is no leisure centre provision nearby, the contribution will be directed to the nearest community facility (e.g. a village hall) that provides recreation activities.

Cheshire East Playing Pitch Strategy

2.13 An up-to-date PPS provides the necessary robustness and direction to inform decisions affecting the provision of outdoor sports facilities, providing a strategic framework that ensures that the provision of playing pitches meets the local needs of existing and future residents within a local authority.

2.14 The Cheshire East PPS was completed in 2017 and has subsequently been updated each year since. Both the original study and the updates identify that the existing position for all main pitch sports is that demand is either being met or that there is a shortfall, whereas the future position shows the exacerbation of shortfalls. This is evidenced in the headline findings table below.

Table 2.1: Quantitative headline findings from the updated Cheshire East PPS (2020)

Sport	Current picture	Future demand (2030)²
Football (grass pitches)	<ul style="list-style-type: none"> ◀ Shortfall of 0.5 adult match equivalent sessions ◀ Shortfall of 14.5 youth 11v11 match equivalent sessions ◀ Shortfall of 7.5 youth 9v9 match equivalent sessions ◀ Shortfall of 5 mini 7v7 match equivalent sessions ◀ Demand for mini 5v5 pitches is being met 	<ul style="list-style-type: none"> ◀ Shortfall of 1 adult match equivalent session ◀ Shortfall of 25.5 youth 11v11 match equivalent sessions ◀ Shortfall of 13 youth 9v9 match equivalent sessions ◀ Shortfall of 6.5 mini 7v7 match equivalent sessions ◀ Shortfall of 5.5 mini 5v5 match equivalent sessions
Football (3G pitches)	<ul style="list-style-type: none"> ◀ Shortfall of 8 full size 3G pitches 	<ul style="list-style-type: none"> ◀ Shortfall of 9 full size 3G pitches

² Future demand based on population growth and club aspirations

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Sport	Current picture	Future demand (2030) ²
Cricket	◀ Shortfall of 78 match equivalent sessions	◀ Shortfall of 138 match equivalent sessions
Rugby union	◀ Shortfall of 5.5 match equivalent sessions	◀ Shortfall of 7 match equivalent sessions
Rugby league	◀ No current demand	◀ No future demand expected
Hockey	◀ Shortfalls for Alderley Edge, Crewe Vagrants, Macclesfield and Wilmslow hockey clubs	◀ Shortfalls for Alderley Edge, Crewe Vagrants, Macclesfield and Wilmslow hockey clubs
Lacrosse	◀ Shortfall for Poynton Lacrosse Club	◀ Shortfall for Poynton Lacrosse Club

- 2.15 The PPS also utilises analysis areas to allow for the data to be presented at a more localised level, with one of the areas aligning to the Poynton Local Area Partnership. This identifies shortfalls within the area for certain formats of football as well as for 3G provision, cricket and lacrosse.

Table 2.2: Quantitative headline findings for Poynton (2020 PPS update)

Sport	Current picture	Future demand (2030) ³
Football (grass pitches)	<ul style="list-style-type: none"> ◀ Demand for adult pitches is being met ◀ Shortfall of 2.5 youth 11v11 match equivalent sessions ◀ Shortfall of 0.5 youth 9v9 match equivalent sessions ◀ Demand for mini 7v7 pitches is being met ◀ Demand for mini 5v5 pitches is being met 	<ul style="list-style-type: none"> ◀ Demand for adult pitches is being met ◀ Shortfall of 3 youth 11v11 match equivalent sessions ◀ Shortfall of 0.5 youth 9v9 match equivalent sessions ◀ Demand for mini 7v7 pitches is being met ◀ Demand for mini 5v5 pitches is being met
Football (3G pitches)	◀ Shortfall of 1 full size 3G pitch	◀ Shortfall of 1 full size 3G pitch
Cricket	◀ Shortfall of 40 match equivalent sessions	◀ Shortfall of 52 match equivalent sessions
Rugby union	◀ Demand is being met	◀ Demand is being met
Rugby league	◀ No current demand	◀ No future demand expected
Hockey	◀ No current demand	◀ No future demand expected
Lacrosse	◀ Shortfall for Poynton Lacrosse Club	◀ Shortfall for Poynton Lacrosse Club

- 2.16 Given the identification of shortfalls, in accordance with Sport England's Playing Field Policy, the overall conclusion of the Cheshire East PPS is that there is a need to protect all existing provision until all demand is met, or that there is a requirement to replace any lost provision. This should be through providing provision that is to an equal or better quantity and quality, before existing facilities are lost, or through providing alternative sports and recreational provision, the need for which must outweigh the loss.

³ Future demand based on population growth and club aspirations

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Cheshire East Built Facilities Strategy

- 2.17 The BFS sets out the indoor sports infrastructure requirements for Cheshire East for its Local Plan period. It identifies a number of strategic objectives, which are as follows:
- ◀ Maximise the potential sports facility development opportunities created through Cheshire East's housing and population growth.
 - ◀ Where appropriate, engage with other services to create multi-agency hubs through the co-location of services.
 - ◀ Work with colleagues in Education to ensure that any new schools or improvements to sports facilities in existing schools are accompanied by a community use agreement.
 - ◀ Work with selected schools to increase their availability for community use.
 - ◀ Enhance the quality of the existing sports facility infrastructure and improve its long-term financial sustainability by ensuring sufficient capital funds are available for improvement and upkeep.
 - ◀ To protect key sports facilities which are deemed at risk or closure, either as a result of age or potential development.
 - ◀ Retain sports facilities and community access where there are changes.
 - ◀ Strategically programme sports and leisure provision to ensure that there is sufficient access for a range of sports to enable growth and increase participation.
 - ◀ To address the long-term management arrangements of the Council's sports facilities so that longer term planning of facility improvements and replacements can take place and for the operator to take a wider focus on health inequalities.
- 2.18 Specific to Poynton, the BFS identifies that there is an undersupply of water space and health and fitness provision in the area, with insufficient capacity to accommodate additional demand. The key action is therefore to increase the size of the swimming pool at Poynton Leisure Centre (which co-habits with Poynton High School) and extend the health and fitness offer.

Cheshire East Local Football Facility Plan

- 2.19 The LFFP for Cheshire East, completed in 2018, builds on the PPS regarding the formal and affiliated game as well as including strategic priorities for investment across small-sided football (including recreational and indoor demand). The LFFP also incorporates consultation with groups outside of formal football, as well as under-represented communities.
- 2.20 It identifies opportunities to target investment across the local area, with 28 priority projects identified. This includes provision of 11 3G pitches and 10 small-sided pitch projects as well as recommended improvements to 33 grass pitches and seven clubhouses.
- 2.21 Pertinent to Poynton, both the PPS and LFFP recommend that a 3G pitch is provided at Poynton High School due to a current shortfall in the area (linked to findings in the PPS). Furthermore, it recommends that the grass pitches at the site should be improved to enable secured community use, with Deva Close identified as another grass pitch site in Poynton requiring improvements. This is to satisfy demand from Poynton Juniors FC and Richmond Rovers FC, the latter of which imports demand to Poynton from Stockport.

Summary

- 2.22 In summary, there is clear national and local policy in place to guide the approach needed for development proposals relating to sports facilities in Cheshire East. It is also evident that no existing provision can be deemed surplus to requirements, meaning other policy exceptions will need to be met to warrant the loss of any existing provision. Linked to this, the various strategies and plans in place provide detail as to what could be required, not only to provide appropriate mitigation but to also improve the sporting landscape across Poynton.

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PART 3: PROPOSED ALLOCATION SUMMARY

- 3.1 The following section reviews each proposed allocation pertinent to the study, detailing what is proposed at the sites and what impact this will have on sports provision.

Site PYT 1: Poynton Sports Club

- 3.2 Poynton Sports Club is proposed to be allocated for residential development in the SADPD for around 80 new homes. The site currently provides:
- ◀ One adult football pitch
 - ◀ One cricket square (plus three cricket nets)
 - ◀ Two lacrosse pitches (on the cricket outfield)
 - ◀ One bowling green
 - ◀ Seven tennis courts (four that are floodlit with an artificial surface and three that are non-floodlit with a macadam surface)
- 3.3 In addition, the site is serviced by a multi-purpose clubhouse that contains a bar, kitchen, function room and six changing rooms. However, it is considered to be poor quality by users, primarily due to being dated and unsuitable for female users. It covers a footprint of 597m².
- 3.4 The Club is a members' club encompassing bowls, cricket, football, lacrosse and tennis sections, with each sporting arm affiliating to the wider club. Whilst you have to be a member to access the site (or one of the affiliated sporting clubs), it is considered to be available to the community. Anyone can be a member and the membership costs are relatively minimal.

Figure 3.1: Overview of Poynton Sports Club



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- 3.5 The entire site, measuring 4.03 hectares including the playing field land and ancillary facilities, is being promoted for a housing development by Jones Homes. As part of this, the developer is proposing to relocate the Sports Club to a new site, land north of Glastonbury Drive and has prepared a Delivery Statement outlining this. Land north of Glastonbury Drive is also proposed to be allocated in the SADPD to enable this relocation to take place (see Site PYT 2, below).

Figure 3.2: Plan showing Poynton Sports Club site boundary



- 3.6 Based on the findings in the 2020 PPS update, the existing football pitch, assessed as standard quality, is overlaid by one match equivalent session. Moreover, Poynton Juniors FC expresses that it also has to access alternative venues, most commonly Deva Close, due to no provision existing on site for its mini and junior teams. The Club has one adult, 11 youth and nine mini teams, whilst the senior arm (Poynton FC) has three adult teams.

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- 3.7 In specific relation to the football provision, Poynton Sports Club has recently received a grant from the Football Foundation for improving the pitches at the site. This is something that could potentially have to be paid back if the Club is relocated in the near future. As part of this agreement, the Club is also obligated to provide a youth 9v9 pitch on site, in addition to the existing adult pitch.
- 3.8 The cricket square on site is also identified as being overplayed in the PPS. It is assessed as standard quality and used for 60 match equivalent sessions more than its recommended capacity. North East Cheshire CC, which has recently renamed itself from Poynton CC, previously fielded all of its demand from the site, consisting of five senior and 13 junior teams. However, it now also accesses provision at Disley Amalgamated Sports Club as a secondary venue following the absorption of some demand from the now defunct Disley CC.
- 3.9 Similarly, the lacrosse pitches, again assessed as standard quality, are also overplayed. Furthermore, both pitches are considered to be too small by England Lacrosse and one of them is considered to be dangerous due to its proximity to the clubhouse at the site. Poynton Lacrosse Club reports that it could field up to four additional junior teams if it had access to more available pitches, suggesting that a lack of provision is hindering its growth. Currently, the Club hosts three senior and six junior teams and uses the pitch at Poynton Sports Club as well as a pitch at Mount Vernon. It is also growing a female section.
- 3.10 Exact information appertaining to bowls and tennis is unclear as these sports are not included within the PPS; however, Jones Homes details in its Delivery Statement that there is demand for additional provision for both sports, suggesting that the current number of greens and courts is insufficient. The LTA reports that there are currently 280 tennis members/users at the site, whilst the bowls section is particularly large, catering for between 90 and 100 members and fielding 16 teams.
- 3.11 All users of the site that were consulted with as part of the PPS report that the clubhouse is poor quality and in need of modernisation. This was echoed as part of this study through consultation with all of the relevant NGBs.

Site PYT 2: Land north of Glastonbury Drive

- 3.12 Land north of Glastonbury Drive is proposed to be allocated for sports and leisure development in the SADPD to enable the relocation of Poynton Sports Club and the residential redevelopment of its existing site. Its proposed allocation is also being promoted by Jones Homes, linked to their promotion of Site PYT 1.
- 3.13 The land north of Glastonbury Drive proposed allocation covers 9.59 hectares, resulting in a significant increase in playing field land amounting to 5.56 hectares compared to the current Poynton Sports Club site. Furthermore, this excess land is more than sufficient to exceed the cumulative loss of playing field land across the two school allocations (see sites PYT 3 and PYT 4, below). However, it must be noted that the Glastonbury Drive site falls within the Green Belt, with any development proposals needing to take this into account.
- 3.14 Jones Homes' Delivery Statement reports that initial site investigations have taken place regarding deliverability, with no known technical constraints identified that could prevent development. This includes investigations into ecology, visual impact, ground conditions, air quality and noise, and services.

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3.15 The Delivery Statement sets out plans to provide replacement provision for what is currently provided at Poynton Sports Club, in addition to establishing:

- ◀ One additional adult football pitch (with shared lacrosse use)
- ◀ Three mini football pitches (with two over marked on the cricket outfield)
- ◀ One youth football pitch
- ◀ A full size 3G pitch
- ◀ One additional cricket net
- ◀ One additional tennis court
- ◀ One additional bowling green

Figure 3.3: Overview of land north of Glastonbury Drive



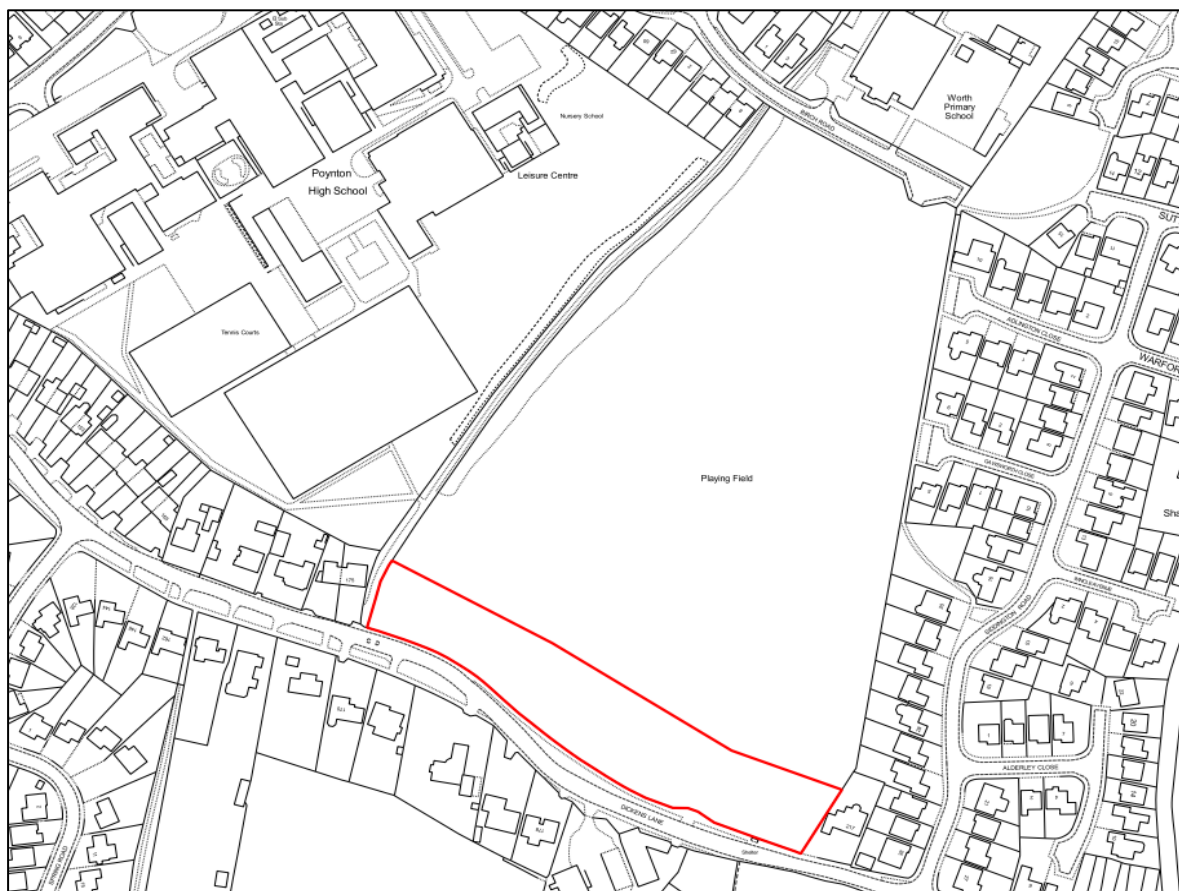
3.16 The proposals also include the development of a purpose-built clubhouse over two floors, covering 1,401m² (with a footprint of 794m²), which is a significant increase in comparison to the Sports Club's existing building. It will contain 12 dedicated changing rooms (equating to an increase of six), with four for football/lacrosse, two for the 3G pitch, two for cricket, two for tennis/bowls, as well as two for officials. Appropriate car parking and access will also be provided.

Site PYT 3: Land at Poynton High School

3.17 Land at Poynton High School comprises a strip of school playing field land and is proposed to be allocated in the SADPD for around 20 new homes. Its development for housing would result in the loss of 0.76 hectares of playing field land.

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Figure 3.4: Land proposed for allocation for development at Poynton High School



3.18 The wider playing field site currently accommodates:

- ◀ One adult football pitch
- ◀ One youth 9v9 football pitch
- ◀ Three mini 7v7 football pitches
- ◀ One senior rugby union pitch

3.19 Of these, two of the mini football pitches, as well as the adult football pitch and the senior rugby pitch, encroach into the area proposed to be allocated for housing, as shown in figure 3.5 overleaf. All of the pitches are considered to be poor quality, with no community use allowed and only limited curricular and extra-curricular activity taking place because of this.

3.20 Only around half of the entire playing field currently contains pitch markings, with land towards the narrowest point of the site unmarked. As such, there is theoretically potential for numerous additional pitches to be marked out; historically, two additional adult football pitches have been provided within the area that is presently vacant.

3.21 There was formerly a standalone non-turf cricket wicket provided, although this has recently been removed (leaving an unfilled space where it was). Nevertheless, future ball-strike issues need to be considered relating to the housing development plans, should demand exist for the provision to be re-instated.

3.22 There is a small storage container servicing the land but no permanent ancillary facilities, with changing provision instead provided in the main school or leisure centre buildings. Access to the playing fields is gained across a path and via two gates leading from the School/Leisure Centre.

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- 3.23 On the main school site, there are also 16 tennis courts and four netball courts provided. These are split into an area with 12 tennis courts that are over marked by the netball courts and an area with four standalone tennis courts, one of which is floodlit. The larger area has significant quality issues, particularly in terms of the line markings, which have faded.

Figure 3.5: Overview of Poynton High School



- 3.24 Within the campus of school buildings is a dual use Leisure Centre and proposals are in place for sports investment across the school site, with these being split into three elements. The first is for an extension and refurbishment of the Leisure Centre to take place and for a new access point to be provided into the site as well as an associated car park. A design process regarding this is currently underway, although it should be noted that this includes the loss of an area that was previously used for sport (circa 20-years ago, rounders markings were present). However, mitigation for this is being considered separate to this study as the application will be judged against Exception E5 of Sport England's Playing Field Policy (and therefore not tied into the other proposals).
- 3.25 The second element involves a floodlit 3G pitch being provided in place of the poor quality tennis/netball courts (the four other courts will remain), with a site investigation report undertaken and pre-application advice sought to help enable this. This part of the development will need to meet Paragraph 97 (c) of the NPPF and Exception 5 of Sport England's Playing Field Policy.
- 3.26 The provision will fall just short of being full size (91 x 55 metres), meaning it will not be able to accommodate certain levels of adult match play. However, it could be used for youth and mini match play and will still meet similar outcomes to that of a full size pitch, especially in terms of accommodating training. Following discussions with the Football Foundation, the floorplans included in this element incorporate changing facilities that have been designed to meet the FA requirements to service a 3G pitch.

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- 3.27 The final element is for improvements to be made to the playing field land that is to be retained including remarking of the impacted pitches. This will allow for increased use by the School and will enable community use, with management of all sporting provision projected to transfer to ESAR. To that end, ESAR has a letter of support from the School that outlines its agreement to the proposals, citing the benefits that will be brought, both for its pupils and for the wider community. As part of this, the School states that it is working with ESAR and the Council to deliver the projects and in relation to management arrangements around community use.
- 3.28 Both playing field improvements and the creation of a 3G pitch at the site are recommended in both the Cheshire East PPS and the Cheshire East LFFP, whilst the Cheshire East BFS details the need for the additional indoor space. It is intended that phase one of the works will be completed as a standalone project, whilst phases two and three will be dependent on funding from the capital receipt of the sale of the 0.76 hectares of playing field land.
- 3.29 The delivery of the 3G pitch would be funded from, and thereby dependent on, the capital receipt from the sale of the proposed allocated playing field land.

Site PYT 4: Former Vernon Infants School

- 3.30 The Former Vernon Infants School site is proposed to be allocated in the SADPD for around 50 new homes. This proposed allocation predominantly comprises the site of the former school but includes a strip of playing field land, with the proposed loss equating to 0.20 hectares.

Figure 3.6: Playing field land proposed for allocation at Former Vernon Infants School⁴



- 3.31 The site is no longer in use as a school; however, sports provision remains in place, with access noted from Richmond Rovers FC. On site, there is:
- ▶ One youth 11v11 football pitch
 - ▶ One youth 9v9 football pitch
 - ▶ One non-turf cricket wicket
- 3.32 The youth 11v11 football pitch extends slightly into the proposed allocated area, whilst the youth 9v9 pitch would not be directly impacted upon by the proposals. Both pitches are assessed as standard quality in the PPS.

⁴ Red line does not constitute the whole proposed allocation, just the playing field land impacted upon.

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- 3.33 The non-turf cricket wicket is currently disused and visibly in a state of disrepair. Questions have, however, been raised as to whether the proposed housing plans could prejudice its future use, especially in terms of creating ball-strike issues.
- 3.34 There are no purpose-built ancillary facilities servicing the site, although aspirations exist for a disused pavilion that sits within Vernon Primary School land to be developed in order to provide changing rooms. This could be carried out in conjunction with pitch quality improvements, although the level of works is currently dependent on the capital receipt received through the disposal of land.

Figure 3.7: Overview of Former Vernon Infants School



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PART 4: MITIGATION OPTIONS APPRAISAL

- 4.1 In order to meet planning policy, there is a clear need for appropriate mitigation measures to be put into place across the proposed allocated sites. As such, the following section appraises what may be required, both from a quantity and quality perspective, taking into account the proposals and aspirations set out above as well as findings from consultation with Sport England and the relevant NGBs.

Site PYT 1: Poynton Sports Club

- 4.2 The development proposal for the loss of Poynton Sports Club (4.03 hectares) and its relocation to land north of Glastonbury Drive (9.59 hectares) is, in theory, acceptable from a quantitative perspective to meet paragraph 97 (b) of the NPPF given the consequential net gain of playing field land at the relocation site. This is on the assumption that each sport currently accommodated will remain provided for, as a minimum, to an equivalent or better quantity and quality, and that the relocation site is deliverable. Information pertaining to this is provided in the following section.

Site PYT 2: Land north of Glastonbury Drive

- 4.3 The potential increased playing field land offered by this proposed allocation allows for an increase in provision that will help alleviate existing capacity issues in the area and improve the sporting landscape across Poynton. To that end, the existing proposal by Jones Homes provides a good starting point as to what is required to provide appropriate mitigation, consistent with Exception 4 in Sport England's Playing Field Policy. This is because at 9.59 hectares it exceeds the quantitative loss of playing field land arising from the existing Poynton Sports Club site (4.03 hectares) as well as from Poynton High School (0.76 hectares) and Vernon Infant School (0.20 hectares).
- 4.4 As a reminder, the relocation site is proposed to contain:
- ◀ Two adult football pitches (with shared lacrosse use)
 - ◀ Three mini football pitches (with two over marked on the cricket outfield)
 - ◀ One youth football pitch
 - ◀ One full size 3G pitch
 - ◀ One cricket square
 - ◀ Four cricket nets
 - ◀ Eight tennis courts
 - ◀ Two bowling greens
 - ◀ A larger clubhouse with 12 changing rooms
- 4.5 These plans are analysed on a sport-by-sport basis below. In addition, a larger, multi-purpose clubhouse is also proposed that will be able to better accommodate indoor activities as well as servicing the changing and social needs for the outdoor sport clubs/users.

Football

- 4.6 From a football perspective, the increased number of grass pitches proposed at land north of Glastonbury Drive (two adult, one youth and three mini) will be of an overall benefit to the sport and should therefore be supported. First and foremost, the provision will alleviate existing capacity issues at Poynton Sports Club, where just one adult pitch is provided. This is overplayed by one match equivalent session, as shown in the table below.

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Table 4.1: Existing football capacity at Poynton Sports Club (PPS, 2020 update)

Pitch type	No. of pitches	Quality	Match equivalent sessions (per week)		
			Capacity	Current usage	Capacity rating
Adult	1	Standard	2	3	1

- 4.7 With two adult pitches proposed as part of the relocation, this will eradicate the shortfall, particularly if both pitches are provided to a good quality as anticipated (three match equivalent sessions of spare capacity will be created). In addition, with youth and mini pitches also to be established, this will create additional capacity for these formats of play.

Table 4.2: Proposed football capacity at land north of Glastonbury Drive

Pitch type	No. of pitches	Quality	Match equivalent sessions (per week)		
			Capacity	Current usage	Capacity rating
Adult	2	Good	6	3	3
Youth 11v11 ⁵	-	-	-	-	0
Youth 9v9	1	Good	4	-	4
Mini 7v7	1	Good	6	-	6
Mini 5v5	2	Good	12	-	12

- 4.8 This additional site capacity will also enable Poynton Juniors FC to relocate demand from the secondary venues it currently uses such as Deva Close, whilst also providing spare capacity for future growth, particularly within mini age formats.
- 4.9 In addition, when looking at Poynton as a whole, it will create overall spare capacity (at peak time) on adult, youth 9v9, mini 7v7 and mini 5v5 pitches (youth 11v11 pitches will be unaltered). There are currently seven adult, two youth 11v11, five youth 9v9, three mini 7v7 and three mini 5v5 pitches provided across Poynton, with adult, mini 7v7 and mini 5v5 pitches considered to be at capacity and a shortfall of youth 11v11 and youth 9v9 pitches identified.

Table 4.3: Proposed Glastonbury Drive impact on football pitch capacity across Poynton

Pitch type	Match equivalent sessions (per week)	
	Current capacity	Proposed capacity
Adult	0	1
Youth 11v11	2.5	2.5
Youth 9v9	0.5	0.5
Mini 7v7	0	1
Mini 5v5	0	2

- 4.10 The proposal for a full size 3G pitch would also significantly improve the capacity picture as it will allow many teams to transfer from grass pitches, including youth 11v11 teams, therefore potentially negating the remaining shortfall identified above. However, consideration must also be given to the proposal for 3G provision to be established at Poynton High School as there is currently a shortfall of just one pitch within the area. As such, the sustainability of both would be questionable as the facilities would likely be in competition.

⁵ No youth 11v11 pitches are proposed for the site

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- 4.11 Discussions with the Football Foundation and CFA identify that both stakeholders would prefer a 3G pitch to be established at Poynton High School, rather than as part of the relocation of Poynton Sports Club. This is because of the management structure already in place at the site, with ESAR set to operate the provision, in addition to the School guaranteeing daytime usage as part of its curricular programme. A lack of daytime use is often a problem for 3G pitches that are not co-located at educational sites as minimal demand exists before 17:00 on weekdays.
- 4.12 Given the above, a better solution would be to provide an additional grass pitch as part of the relocation to land north of Glastonbury Drive, instead of a 3G pitch. Preferably, this would be a youth 11v11 pitch to cater for Poynton Juniors FC's U13-U16 age groups. The Club should then be offered priority access to the 3G pitch at Poynton High School, together with other large clubs in the area such as Richmond Rovers FC.

Cricket

- 4.13 Presently, the square at Poynton Sports Club provides four grass wickets that are suitable for senior cricket and two grass wickets for junior cricket. Combined, these are overplayed by 60 match equivalent sessions by North East Cheshire CC.

Table 4.4: Existing cricket capacity at Poynton Sports Club (PPS, 2019 update⁶)

Wicket type	No. of wickets	Quality	Match equivalent sessions (per season)		
			Capacity	Current usage	Capacity rating
Senior	4	Standard	16	56	40
Junior	2	Standard	8	28	20

- 4.14 Within the Jones Homes proposal, 14 grass wickets are set to be established on the square. On the assumption that these will be good quality and that at least 10 will be suitable for senior cricket, it is determined that the shortfalls will be significantly reduced.

Table 4.5: Proposed cricket capacity at land north of Glastonbury Drive

Wicket type	No. of wickets	Quality	Match equivalent sessions (per season)		
			Capacity	Current usage	Capacity rating
Senior	10	Standard	50	56	6
Junior	4	Standard	20	28	8

- 4.15 As evidenced in the table below, this will also have a substantial impact on the supply and demand balance of cricket squares across Poynton as a whole, which supplies three grass wicket squares. The existing shortfall of 40 match equivalent sessions on senior wickets will reduce to six and the existing shortfall of 32 match equivalent sessions on junior wickets will be eradicated. This is because of spare capacity elsewhere within the area offsetting what shortfall will remain as part of Poynton Sports Club's relocation.

Table 4.6: Proposed Glastonbury Drive impact on cricket pitch capacity across Poynton

Format	Match equivalent sessions (per season)	
	Current capacity	Proposed capacity
Senior cricket	40	6
Junior cricket	32	14

⁶ The cricket section was not updated in 2020 due to the Covid-19 pandemic disrupting play.

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- 4.16 To fully eradicate the remaining shortfalls, there is not necessarily a need to significantly change the plans proposed by Jones Homes. Instead, other options could be pursued, such as the creation of a non-turf wicket to accommodate demand from North East Cheshire CC, or through the Club transferring more demand to Disley Amalgamated Sports Club.
- 4.17 The proposals relating to the square are, in principle, supported by the ECB, although it notes that a ball-strike assessment may be required in relation to its position relative to other sports (particularly the tennis courts). The NGB is also supportive of the increase from three practice nets to four as this will provide additional training space for the Club, which is considered especially important as it continues to grow.
- 4.18 Currently, only two changing rooms for cricket are included in the proposals; however, more should be made available to the sport during the season, if required, as there will be minimal use of the changing rooms designated for football users at this time of the year. With the ECB's current focus on increasing women's and girls' demand, it is also imperative that the changing rooms are suitable for female access.

Lacrosse

- 4.19 At present, the lacrosse pitches at Poynton Sports Club are overplayed, partly because of the substantial usage but also because the space is shared with the cricket square. With the lacrosse and cricket seasons overlapping, this allows for no post-season remedial work and no rest period for the pitches. As such, the proposal to re-provide the two pitches at land north of Glastonbury Drive and to separate them from the planned cricket provision is a positive move for the sport and supported by England Lacrosse, which reports that dual football use is less problematic as the seasons run concurrently and the wear and tear areas are different. Furthermore, utilising adult football pitches will mean that the size of the provision is more appropriate than what is currently utilised. Establishing them as good quality rather than standard will also further increase capacity.
- 4.20 Notwithstanding the above, it remains likely that the lacrosse demand will require access to more than two pitches, especially at peak time, with the current intention for the proposed 3G pitch to also be utilised. However, as set out above, developing a 3G pitch as part of the relocation is not advised, meaning an alternative approach is required. This could be achieved via enabling lacrosse to access the 3G pitch at Poynton High School, as well as ensuring that the additional grass pitch (where the 3G pitch is planned at the Sports Club) is useable for lacrosse (meaning three pitches will be provided at the site).
- 4.21 England Lacrosse reports that it has recently enabled use of 3G pitches for matches within its rules and openly encourages use of the surface given the grass pitch shortages it encounters nationwide. Whilst the 3G pitch proposed at Poynton High School is slightly smaller than the recommended size of a senior lacrosse pitch, it is larger than the grass pitches provided currently, meaning no limitations will be placed on activity. Moreover, it can also be used for training and junior matches, where smaller pitch sizes are used.

Tennis

- 4.22 The existing proposal for relocation of Poynton Sports Club to land north of Glastonbury Drive involves increasing the number of tennis courts from seven to eight. On the assumption that these will all be floodlit (as they currently are), potential capacity will increase from 420 members to 480 (the LTA suggests that a floodlit court has capacity for 60 members, whereas a non-floodlit court has capacity for 40 members).

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- 4.23 Notwithstanding the above, it must be reiterated that land north of Glastonbury Drive sits within the Green Belt. As such, consideration must be given to this when proposing floodlights for the site and further work is required to test whether or not this is possible from a planning perspective.
- 4.24 There are currently 245 members of the tennis section at the site, in addition to 45 users that are non-members but that are involved in a regular coaching programme. As such, the proposed provision of eight courts is deemed to be sufficient and should be supported, especially as it allows for significant growth (in theory, replacing the existing seven courts would also be sufficient). The LTA reports that it would put the site into its category of “large club” and is supportive of the proposals.
- 4.25 Especially important to the LTA is for the eight courts to all be dedicated courts, as proposed, instead of four of the existing courts forming part of a multi-use area (being marked out on a sand based artificial grass pitch (AGP)). This is because other usage of the AGP can impact on tennis capacity and the surface type is not always ideal.

Bowls

- 4.26 Capacity guidance for a bowling green suggests that around 60 members can be catered for on one green, although this can increase significantly if the provision is well operated and maintained. As such, with the bowling section at Poynton Sports Club currently catering for 90-100 members, consideration could be given to supplying a second green as part of the relocation, as currently proposed by Jones Homes, although one green could also be sufficient with the correct level of maintenance. The BCGBA reports that enough demand exists to sustain two greens; however, it is recommended that further feasibility is undertaken, including the development of a business case to ensure that this is the case.
- 4.27 The relocation proposal to land north of Glastonbury Drive proposes the creation of two greens, which is supported by the BCGBA. As part of this, the NGB reports that the minimum dimension of a bowling green is 38m² and it would expect this requirement to be met.

Hockey

- 4.28 Whilst there is no current hockey usage at Poynton Sports Club, the smaller size AGP (measuring 60 x 30 metres) that currently accommodates four of the tennis courts could theoretically be used for hockey given its surface type (sand-based). As a result, hockey pitch stock could be negatively affected by the relocation plans, with the tennis courts proposed as dedicated tennis courts rather than multi-use. This means that some form of hockey-specific mitigation should be considered, as this not currently being factored into plans from Jones Homes.
- 4.29 EH reports no hockey demand in Poynton with no clubs based in the area. This means that it has no aspirations for hockey provision to be re-established as part of the re-location as it would be unlikely to be used. Instead, it reports that it would benefit more from a contribution being directed towards existing hockey provision, for which there is demand for.
- 4.30 Tytherington High School has been identified as the preferred site. The existing pitch at the School currently caters for substantial demand from Macclesfield HC for both match play and training purposes, despite it being assessed as poor quality and in need of a resurface. Contributions should therefore be sought towards the refurbishment of the AGP as part of the mitigation of Poynton Sports Club.

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Site PYT 3: Land at Poynton High School

- 4.31 The proposal at Poynton High School will result in the loss of playing field land equating to 0.76 hectares. However, despite the loss of playing field land, no loss of pitches are proposed as the same level of provision can be retained through re-orientation and via the utilisation of currently unmarked areas. This is shown in the figure below.

Figure 4.1: Proposed pitch layout at Poynton High School



- 4.32 The existing proposals also include qualitative improvements to the remaining playing field area and the creation of a 3G pitch in place of some of the existing tennis/netball courts. The impact of this and any further considerations are assessed below for all of the relevant sports.

Football

- 4.33 Currently, there is one adult, one youth 9v9 and three mini 5v5 pitches marked out on the playing field, with the proposed allocated land encroaching across two of the mini pitches and the adult pitch. However, approximately half of the site is currently unmarked, meaning that it will be possible to re-designate the provision to ensure that what is presently provided can still be supplied following the proposed development, meaning that the quantity of pitches currently provided will not be affected.
- 4.34 In addition, as part of the mitigation currently proposed, qualitative pitch improvements are planned. All of the pitches are currently poor quality, with no community use offered because of this and only limited curricular and extra-curricular activity taking place. The impact of improving quality, even if just to standard, will therefore be significant as it will provide additional peak time capacity (i.e. actual spare capacity). The difference this would make at the School is shown in the table below.

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Table 4.7: Impact of football pitch quality improvements at Poynton High School

Pitch type	Match equivalent sessions (per week)	
	Current capacity ⁷	Proposed capacity
Adult	0	2
Youth 11v11	0	0
Youth 9v9	0	2
Mini 7v7	0	0
Mini 5v5	0	12

- 4.35 The above will result in spare capacity being created across Poynton on adult, youth 9v9 and mini 5v5 pitches, as evidenced in the following table.

Table 4.8: Proposed Poynton High School impact on football pitch capacity across Poynton

Pitch type	Match equivalent sessions (per week)	
	Current capacity	Proposed capacity
Adult	0	2
Youth 11v11	2.5	2.5
Youth 9v9	0.5	1.5
Mini 7v7	0	0
Mini 5v5	0	12

- 4.36 Furthermore, there is a possibility of re-configuring the pitches when they are re-orientated, to provide, for example, a mini 7v7 pitch instead of three mini 5v5 pitches or a youth 11v11 pitch instead of an adult pitch. This could help reduce shortfalls or create spare capacity on those pitch types whilst still ensuring that there are no shortfalls on the pitch types that are being lost.
- 4.37 In addition, a 3G pitch is also proposed for the site, to be funded as a result of Section 77. Whilst this will not be full size, it will still be able to fulfil similar outcomes to that of a full size pitch in terms of meeting football training demand given that it will be split into thirds or quarters as is the case with full size provision. As a result, it will alleviate the shortfall in Poynton, as calculated through the FA's training model (for one full size 3G pitch being needed for every 38 teams).

Table 4.9: Demand for 3G pitches in Poynton (PPS update, 2020)

Current number of teams	3G requirement ⁸	Current number of 3G pitches	Shortfall
37	1	0	1

- 4.38 With the provision of a 3G pitch, some match play will also be able to transfer from grass pitches in the area, thus resulting in further capacity benefits in relation to the grass pitch stock. Whilst the pitch will not be large enough to accommodate all forms of adult match play, it will be suitable for youth and mini matches provided that it is FA tested and approved.

⁷ All spare capacity is currently discounted due to quality issues and no community use being offered.

⁸ Rounded to the nearest whole number

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- 4.39 Based on the above, it is clear that the proposals in place will be of an overall benefit to football in Poynton. However, this is dependent on there being a secure community use agreement in place, which is to be provided by the School through ESAR. Furthermore, it is imperative that the pitch improvements take place in conjunction with the FA and other football partners to ensure that the works carried out have a long-term, sustainable impact.
- 4.40 To fully achieve the benefits of a 3G pitch, large clubs in the area such as Poynton Juniors FC and Richmond Rovers FC should be identified as partner clubs and given priority access. To that end, ESAR reports that both clubs have been approached and are keen to utilise the proposed facility. Moreover, the pricing structure must be affordable for community demand and align against grass pitch hire charges to encourage match play on the surface.

Rugby union

- 4.41 There is currently a single senior rugby union pitch marked out at the School, with the proposed allocated area cutting across this. As with the football pitches, it is assessed as poor quality and is unavailable for community use.
- 4.42 The RFU reports that future community demand is unlikely given that the club-based demand in the area is unlikely to want to access a secondary venue at a school. However, it states that the pitch is required due to the School's own rugby programme, which is substantial. As a result, retention is necessary, with enough space existing for the pitch to be re-provided elsewhere on the site. Furthermore, quality improvements should be sought, as planned, to better accommodate and to allow for an increase in the curricular and extra-curricular demand received. As part of this, current drainage issues at the site need to be addressed.

Cricket

- 4.43 Whilst the non-turf wicket at Poynton High School has recently been removed due to quality issues, it still needs to be considered as part of the historical make-up of the site. Because of this, it must be noted that the housing development proposed could cause ball-strike issues and prejudice its future use if it was to be re-provided where it was. This is due to some of the new dwellings potentially falling within a 60-metre radius of where the stumps would be.
- 4.44 Linked to the above, both the ECB and the CCCB report that the wicket should be re-provided as part of the mitigation package as the School has a considerable cricket programme; it currently uses provision at Poynton Sports Club. Consideration has therefore been given as to whether it could be accommodated within a different area of the site, which can likely be achieved via moving it slightly further north and more centrally. This would enable both stumps to be further than 60-metres away from any buildings, although a risk assessment may still be required to confirm).

Tennis

- 4.45 There are currently 16 tennis courts provided at the School, with 12 of these being poor quality and proposed for loss to accommodate the 3G pitch. Whilst this will result in a quantity loss for tennis, discussions with the LTA concluded that there are no concerns over the impact of this because sufficient (and better quality) provision will be retained. The remaining four courts need to be improved in terms of quality, with increased floodlighting to be explored if this is possible in terms of planning.
- 4.46 The LTA also reports the importance of actively encouraging community use via pay and play bookings. As such, it is also keen for its LTA Rally platform to be linked in as part of a wider programme across ESAR sites (Barony Park Sports Complex and Alderley Park have also been discussed).

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- 4.47 Rally is an aggregator that collects all booking information and displays it for participants in one easy to view page; it allows players to search for venues close to them and provides booking options, removing the barriers of not knowing where courts are or how to book.

Netball

- 4.48 Provision of the 3G pitch will also remove all four existing netball courts from the site, which is problematic as it will mean that no facilities are provided for curricular needs. However, this can be overcome by over marking netball courts across the tennis courts that are to be retained, which England Netball would consider to be an adequate solution. At least two new netball courts and potentially up to four could be accommodated within this area.

Site PYT 4: Former Vernon Infants School

- 4.49 As with the proposals at Poynton High School, taken in isolation, the proposed allocation at Former Vernon Infants School will result in the loss of playing field land (equating to 0.20 hectares), with qualitative improvements to take place on the playing field land that is to be retained. Currently, only football and cricket facilities are supplied on the site, so the impact of the plans on these two sports is assessed below.

Figure 4.2: Proposed layout at Former Vernon Infants School



Football

- 4.50 There is currently a youth 11v11 and a youth 9v9 marked out on the playing field, with the proposed allocated land encroaching into one of the goal areas of the youth 11v11 pitch. However, enough space exists for the pitches to be re-marked away from the developable land, especially if the non-turf cricket wicket is to be lost (see below). As a result, the existing quantity of pitches will not be affected by the plans.

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- 4.51 The two pitches are currently assessed as standard quality. Improving this to good will therefore increase capacity, both at the site and in Poynton as a whole. The impact of this across the area is shown in the following table.

Table 4.10: Proposed impact on football pitch capacity across Poynton

Pitch type	Match equivalent sessions (per week)	
	Current capacity	Proposed capacity
Adult	0	0
Youth 11v11	2.5	1.5
Youth 9v9	0.5	0.5
Mini 7v7	0	0
Mini 5v5	0	0

- 4.52 The current shortfall of youth 11v11 pitches will reduce from 2.5 match equivalent sessions to 1.5 match equivalent sessions, whilst a shortfall of youth 9v9 pitches will be eradicated and 0.5 match equivalent sessions of spare capacity created. As such, the development will be of a benefit to football provision.
- 4.53 Notwithstanding the above, as with the pitch improvement requirements at Poynton High School, it is imperative that the works take place in conjunction with the FA and other football partners to ensure that quality can be sustained in the long-term.

Cricket

- 4.54 The existing non-turf wicket at the site is disused and has significant quality issues. In addition, the proposed housing development will likely create ball-strike issues if it was to be used in the future, with existing nearby houses already causing problems in this regard. As such, re-establishing the facility is not considered to be a feasible option.
- 4.55 Further to the above, the ECB and the CCCB also report that significant demand is unlikely to exist for the provision, although that is not to say that it is surplus to requirements and can be lost. To that end, discussions with the ECB and the CCCB identify that the non-turf wicket could be removed from the site and a replacement strip provided as part of the mitigation package at a more viable location.
- 4.56 Suitably, North East Cheshire CC is considered to be an ideal club to accommodate a non-turf wicket given that it is currently without such provision and given its substantial junior demand. This could either be supplied as part of its relocation to land north of Glastonbury Drive, further tying the proposals together and resolving any remaining capacity issues, or at Disley Amalgamated Sports Club, which the Club now uses as a secondary venue. This is a decision that should be further explored in conjunction with the Club as to its preferred site and guided by the ECB and the CCCB.

Summary

- 4.57 The needs and requirements set out above will be sufficient to ensure that the proposed allocations can holistically satisfy the needs of relevant stakeholders and meet planning policy. This is because the proposal at land north of Glastonbury Drive can provide sufficient mitigation for the relocation of Poynton Sports Club and to offset the loss of playing field land at Poynton High School and Former Vernon Infants School, in addition to qualitative improvements to the provision that is to be retained. As such, it is considered that tying the plans together will fully meet with Exception E4 of Sport England's Playing Field Policy and exceed the necessary qualitative and quantitative mitigation required as a result of the loss of sports facilities across the three allocated housing sites.

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- 4.58 Furthermore, the proposals are also viewed by partners to have the potential to improve the sporting landscape in Poynton through the betterment of provision to better meet local sporting needs. This was echoed through the consultation process, with all relevant NGBs being supportive of the proposals.
- 4.59 An example of the betterment can be identified through comparing the supply and demand analysis for football (as the one sport provided across each proposal) currently to what it would be should all of the development plans come to fruition. To that end, actual spare capacity will be created on adult, youth 9v9, mini 7v7 and mini 5v5 pitches in Poynton, compared to presently where all pitch types are either at capacity or at a deficit. The only shortfall that will remain is for youth 11v11 pitches, which could easily be overcome through the utilisation of the proposed 3G pitch or through re-configuration.

Table 4.11: Proposed overall impact on football pitch capacity across Poynton

Pitch type	Match equivalent sessions (per week)	
	Current capacity	Proposed capacity
Adult	0	3
Youth 11v11	2.5	1.5
Youth 9v9	0.5	3.5
Mini 7v7	0	1
Mini 5v5	0	14

- 4.60 Implementing a collective approach to the proposed allocations will be viewed positively by Sport England due to the resultant net gain in playing field land and the qualitative improvements that will take place. However, careful consideration needs to be given to the sequencing of the developments and mitigation and it is essential that all the necessary mitigation measures are delivered.
- 4.61 Exception 4 of Sport England's Playing Field Policy expects the mitigation associated with each site to be completed prior to any loss of any existing playing field land. However, in this instance, the land use changes proposed are being managed comprehensively and are being co-ordinated through the SADPD. They are not a series of separate proposals being addressed solely through individual planning applications and it is also the case that the qualitative improvements proposed at both the Poynton High School site and the Vernon Infants School site will, in themselves, result in an improvement in the quality and capacity of playing field facilities for existing and new users at each location.
- 4.62 With the above in mind, and if each set of improvements at Poynton High School and Vernon Infants School are completed and are in use ahead of the loss of the associated playing field land allocated for housing, then it is considered that the development of these two allocated housing sites could commence before the new pitches at Glastonbury Drive were brought into use. Housing development commencement at these two sites would still have to wait until the initial physical provision of the pitches at Glastonbury Drive had been completed but could go ahead once the subsequent establishment and maintenance stage associated with bringing them into use had commenced. Although this would be a limited departure from Sport England's Exception E4, it could be justified in the circumstances described and due to the significant additional benefits to Poynton in terms of future sporting provision when delivered. In addition, this approach could have the added benefits of enabling the qualitative improvements at Vernon Infant School and Poynton High School to be carried out sooner than what would otherwise be the case.
- 4.63 Notwithstanding the above, development of the existing Poynton Sports Club site could only commence once the provision at land north of Glastonbury Drive is fully delivered and is available for use and the clubs have access to it.

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4.64 For a full summary of the mitigation appraisal, see Part 7: Conclusion and Table 7.1.

Other considerations

- 4.65 During the consultation process with NGBs, some additional aspirations were made known to consider moving forward. However, it must be made clear that these are not necessarily requirements but rather considerations; they are set out to potentially further enhance the proposals from a sporting perspective.
- 4.66 The RFU reports that the 3G pitch proposed at Poynton High School could be installed as World Rugby compliant, allowing for full contact rugby union training and junior/mini match play to take place on the provision (the pitch would not be large enough for senior matches). If this were to be the case, demand would likely be received from numerous clubs, including Stockport-based clubs. However, it may limit the amount of football usage that could be catered for, although this effect would likely be minimal as the level of rugby activity would be expected to only make up a small proportion of the demand.
- 4.67 The LTA sets out that Poynton is currently a strategic location due to high club-based tennis demand. Linked to this, it identifies that the creation of indoor provision could be pursued, with indoor facilities currently being a priority area for the NGB. This could be achieved via a high-cost permanent solution, or a lower cost project via, for example, the creation of an air dome over a couple of courts.
- 4.68 Given the above, the LTA identifies that, if not developed initially, the tennis courts should be provided in a way that will enable future development of indoor provision. This will entail enough space being left around the courts for the future installation of a ring beam and air dome covering.
- 4.69 The ECB reports that it would prefer the clubhouse at land north of Glastonbury Drive to be located in closer proximity to the cricket square than what is currently proposed, with the changing rooms having a view out to the square. It is felt that this would improve the appeal of the site and the playing and viewing experience (although it may be more costly to deliver due to how the land lies).
- 4.70 England Lacrosse reports that lacrosse demand ideally needs larger changing rooms than what is ordinarily proposed (which is generally based on the needs of football). This is due to large squad sizes and the amount of equipment brought to matches. However, it also states that standard sized changing rooms would still establish a significantly better offer than what is provided at the existing site, meaning that it would not be a major concern if larger provision was not delivered. The NGB does not have any recommended size guidance.
- 4.71 England Lacrosse also identifies that Box Lacrosse activity could be taken into consideration, especially as part of any 3G and/or court development. It reports that this is a growing, small-sided version of the game that is typically played indoors, with the playing area generally being the size of an ice-rink (in North America, where the game is particularly popular, covered ice-rinks are ordinarily used for matches). However, in the UK, activity is often accommodated outdoors, where small sized artificial pitches are commonly utilised. An example of this is actually found nearby to Poynton, at Disley Amalgamated Sports Club, where the Northern Box Lacrosse Association hosts regular sessions and tournaments.

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PART 5: HOUSING GROWTH REQUIREMENTS

- 5.1 The mitigation proposals should not solely take into account current demand, but also potential future demand and specifically future demand that is linked to housing growth. This section of the study therefore identifies whether any additional demand needs to be accommodated within the mitigation measures, with this linked to both the housing that is planned at the proposed allocated sites and to wider housing growth plans across the area.
- 5.2 Sport England's Playing Pitch Calculator provides a tool for determining likely increases in playing pitch demand linked to housing growth. It split the total pitch requirement into natural turf pitches (for each relevant sport) to meet peak time demand, artificial pitches to meet training demand and changing facilities to support the increased demand. It then provides the associated costs of delivering what is required to cater for the demand, which can then be used as a starting point when negotiating what contribution should be requested from developers. There is an expectation from Sport England that the calculator should be used as a guide by local authorities with a robust PPS in place.

Site PYT 1: Poynton Sports Club

- 5.3 The total number of dwellings proposed for the development is 80, which equates to a population growth of 129 people (1.61 people per dwelling⁹). The following table identifies the playing pitch demand likely to derive from this growth for both match play and training.

Table 5.1: Demand for pitch sports generated from housing growth at Poynton Sports Club

Pitch sport	Estimated demand by sport	
	Match demand (match equivalent sessions)	Training demand
Adult football	0.02	0.22 hours
Youth football	0.05	
Mini soccer	0.04	
Rugby union	0.01	0.01 match equivalent sessions
Rugby league	0.00	0.00 match equivalent sessions
Adult hockey	0.01	0.03 hours
Junior & mixed hockey	0.00	0.01 hours
Cricket	0.86	¹⁰

- 5.4 The above is then used to identify what pitch provision might be required to accommodate the demand.

Table 5.2: Pitch requirements generated from housing growth at Poynton Sports Club

Pitch type	Number of pitches to meet demand
Adult football	(0) 0.02
Youth football	(0) 0.05
Mini soccer	(0) 0.04
Rugby union	(0) 0.01
Rugby league	(0) 0.00
Cricket	(0) 0.02
Sand based AGPs	(0) 0.00
3G	(0) 0.01

⁹ Based on Cheshire East's Local Plan Housing Development Study.

¹⁰ Training for cricket is considered to take place away from playing provision so is not included

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- 5.5 As seen, the overall pitch demand emanating from the proposed allocation is extremely minimal. Therefore, no additional provision is warranted, with the existing increases proposed as part of the relocation to land north of Glastonbury Drive deemed sufficient to accommodate the additional demand. Contributions should therefore go towards delivery of this, or be directed elsewhere.

The contributions required, as identified by the Calculator, are shown in the table below.

Table 5.3: Contributions to be sought from development at Poynton Sports Club

Site	Capital cost	Lifecycle	Changing rooms
Poynton Sports Club	£21,879	£3,170	£30,358

Site PYT 2: Land north of Glastonbury Drive

- 5.6 No housing is proposed as part of this proposed allocation. Therefore, no consideration is required within this section of the report.

Site PYT 3: Land at Poynton High School

- 5.7 The total number of dwellings proposed for the development is 20, which equates to a population growth of 32 people. The table below identifies what this means in terms of increased demand.

Table 5.4: Demand for pitch sports generated from housing growth at Poynton High School

Pitch sport	Estimated demand by sport	
	Match demand (match equivalent sessions)	Training demand
Adult football	0.01	0.05 hours
Youth football	0.01	
Mini soccer	0.01	
Rugby union	0.00	0.00 match equivalent sessions
Rugby league	0.00	0.00 match equivalent sessions
Adult hockey	0.00	0.01 hours
Junior & mixed hockey	0.00	0.00 hours
Cricket	0.21	-

- 5.8 The pitch provision potentially required to cater for the above demand is identified in the following table.

Table 5.5: Pitch requirements generated from housing growth at Poynton High School

Pitch type	Number of pitches to meet demand
Adult football	(0) 0.01
Youth football	(0) 0.01
Mini soccer	(0) 0.01
Rugby union	(0) 0.00
Rugby league	(0) 0.00
Cricket	(0) 0.00
Sand based AGPs	(0) 0.00
3G	(0) 0.00

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- 5.9 As with site PYT 1, the overall pitch demand emanating from the proposed allocation is not sufficient to warrant the creation of additional provision, with the existing proposals considered adequate to meet the residual demand. Contributions should therefore go towards delivery of this, or be directed elsewhere.

Table 5.6: Contributions to be sought from development at Poynton Sports Club

Site	Capital cost	Lifecycle	Changing rooms
Poynton High School	£5,427	£786	£7,531

Site PYT 4: Former Vernon Infants School

- 5.10 A total of 50 dwellings are proposed at the site, amounting to a population growth of 80 people, with the following table setting out resultant demand increases.

Table 5.7: Demand for pitch sports generated from housing growth at Former Vernon Infants School

Pitch sport	Estimated demand by sport	
	Match demand (match equivalent sessions)	Training demand
Adult football	0.01	0.14 hours
Youth football	0.03	
Mini soccer	0.02	
Rugby union	0.01	0.01 match equivalent sessions
Rugby league	0.00	0.00 match equivalent sessions
Adult hockey	0.01	0.02 hours
Junior & mixed hockey	0.00	0.00 hours
Cricket	0.53	-

- 5.11 The pitch provision that might be required to accommodate this demand is identified below.

Table 5.8: Pitch requirements generated from housing growth at Former Vernon Infants School

Pitch type	Number of pitches to meet demand
Adult football	(0) 0.01
Youth football	(0) 0.03
Mini soccer	(0) 0.02
Rugby union	(0) 0.01
Rugby league	(0) 0.00
Cricket	(0) 0.01
Sand based AGPs	(0) 0.00
3G	(0) 0.00

- 5.12 The overall pitch demand emanating from this proposed allocation is also not sufficient to warrant the creation of additional provision, with the existing proposals again considered adequate to meet the residual demand. Contributions should therefore go towards delivery of this, or be directed elsewhere.

Table 5.9: Contributions to be sought from development at Poynton Sports Club

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Site	Capital cost	Lifecycle	Changing rooms
Vernon Infants School	£13,569	£1,966	£18,827

Overall

- 5.13 Ordinarily, playing pitch needs linked to housing growth would be dealt with individually for each development when a planning application is submitted. Dependent on the level of growth, this would then lead to new provision being created within or nearby to a development, or contributions would go towards the improvement and/or enhancement of existing sites in the area.
- 5.14 An alternative method is to determine what playing pitch increases will be required to support increased demand across Poynton as a whole and incorporate this into the Mitigation Strategy, future proofing the proposals and potentially pooling contributions together.
- 5.15 For this approach, consideration needs to be given to the indicative housing figure for Poynton as a whole, with 650 dwellings proposed in Cheshire East's Local Plan (covering the period 2010-2030). With 123 dwellings already delivered, and taking into account what remains as commitments, including LPS allocations (439 dwellings), and proposed SADPD allocations (150 dwellings), this means that an increase of 589 dwellings needs to be accounted for, with a resultant population growth of 948 people.
- 5.16 The table below identifies playing pitch demand linked to a population growth of 948 people.

Table 5.10: Demand for pitch sports generated from housing growth in Poynton as a whole

Pitch sport	Estimated demand by sport	
	Match demand (match equivalent sessions)	Training demand
Adult football	0.15	1.62 hours
Youth football	0.38	
Mini soccer	0.25	
Rugby union	0.08	0.09 match equivalent sessions
Rugby league	0.00	0.00 match equivalent sessions
Adult hockey	0.08	0.23 hours
Junior & mixed hockey	0.01	0.06 hours
Cricket	5.91	-

- 5.17 What this means for pitch provision is set out in the table below.

Table 5.11: Pitch requirements generated from housing growth in Poynton as a whole

Pitch type	Number of pitches to meet demand
Adult football	(0) 0.15
Youth football	(0) 0.38
Mini soccer	(0) 0.25
Rugby union	(0) 0.08
Rugby league	(0) 0.00
Cricket	(0) 0.13
Sand based AGPs	(0) 0.02
3G	(0) 0.04

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- 5.18 Whilst the increase in demand across Poynton as a whole is more significant than when looking at each proposed allocation individually, it is still relatively minimal and does not equate to the need for an entire pitch for any of the sports. As such, it is not considered that any additional provision needs to be included as part of the mitigation plans, over and above what has been set out in Part 4. Nevertheless, contributions should still be sought from the other developments, where appropriate, to support Poynton's and Cheshire East's wider playing pitch needs. The Playing Pitch Calculator provides a guide as to the likely increases in playing pitch demand linked to housing growth.

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PART 6: DELIVERABILITY

- 1.8 STRI has assessed the feasibility of providing the proposed mitigation at land north of Glastonbury Drive, Poynton High School and Former Vernon Infants School (an analysis of Poynton Sports Club has not been required due to the site being proposed for loss). To inform this, site assessments have been carried out and individual reports produced, with this section summarising the findings. The assessments considered a detailed analysis of the ground conditions (including drainage and topography) at the sites and the identification of any constraints that could prevent development or that could affect playing pitch quality.
- 6.1 For further background information and potential site layouts, see Appendix 1.
- 6.2 In addition, as referenced earlier within this report, Green Belt considerations are relevant to land north of Glastonbury Drive. This is further detailed in Paragraph 6.10, below.

Site PYT 2: Land north of Glastonbury Drive

- 6.3 The objective of STRI's appraisal at land north of Glastonbury Drive was to:
- ◀ Review existing site information
 - ◀ Investigate the location to identify constraints
 - ◀ Provide recommendations for the works required to the deliverer (i.e. Jones Homes)
- 6.4 The analysis finds that, from ground condition assessments, the site is deliverable, with nothing identified to prevent a development and enough space existing to accommodate the proposed sports facilities with suitable safety run-off margins around all sides. Furthermore, no features have been identified that would result in potential costs or timings being significantly higher/longer than what would ordinarily be expected.
- 6.5 As part of the analysis, an alternative and more appropriate site layout has also been set out, from a construction and facility mix point of view, to that previously proposed by Jones Homes. This accounts for the appraisal within this report (e.g. the removal of the 3G pitch) as well as ground conditions and affordability (e.g. developing pitches where the least amount of ground work will be required and where the greatest quality can be achieved). As such, any alterations will not impact on the deliverability of the site against Sport England Playing Field Policy and instead enhance the proposals.
- 6.6 In summary, it identifies that the following needs to be taken into consideration:
- ◀ The proposed location of the clubhouse could be reviewed to maximise the use of the existing flat area of ground for the development of playing facilities. This is to avoid unnecessary and potentially costly earthworks elsewhere to create similar terrain; however, this does not take into account other planning considerations that may also influence the layout of the site, particularly the location and form of the clubhouse.
 - ◀ The site is an unmanaged agricultural grassland field vegetated with various grass, weed and shrub species. The existing vegetation should be thoroughly killed off and removed to enable the pitch development works and to prevent re-infestation.
 - ◀ The site is characterised by two prominent plateau areas, interspersed by natural gullies, that gradually fall from the south-eastern corner to the north-western corner. A cut and fill earthworks operation will be required to achieve a suitable formation surface for the proposed pitch construction. The quantum should be calculated to ensure the formation surface can be formed without the need to export or import materials.

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- ◀ The primary limiting factor is the site topsoil, which laboratory analysis has confirmed is a sandy loam with a high percentage of fine particles ('fines'). It can be anticipated that the site topsoil will have very poor drainage characteristics, which may be exacerbated by maintenance and play. As such, the site topsoil should be appropriately ameliorated with enough sand material to make it suitable for the pitch construction works.
- ◀ The site subsoil is a clay dominated material that displayed signs of seasonal waterlogging. A comprehensive sports pitch drainage system will be required as part of the pitch design. The Brook to the north of the site and the associated ditches across the site all presents a potential outfall solution. Floodplain type features alongside the Brook offer great potential for Sustainable Drainage Solutions (SuDS) to be utilised along with bio-diversity net gain of the site.
- ◀ There are no concerns with site access for pitch construction plant and materials.

6.7 Based on the above, as a minimum, it is recommended that the following construction methodology is followed:

- ◀ Initial site clearance;
 - ◀ In advance of the works, the existing vegetation should be cut as short as possible using suitable grass cutting machinery. Given the unmanaged nature of the vegetation observed, the vegetation should be cut and bailed using agricultural type equipment. Any shrubbery within the working area should be removed at this stage.
 - ◀ Thereafter, a total non-residual herbicide should be applied to the entire working area using a tractor mounted sprayer or similar.
- ◀ Topsoil stripping and storage;
 - ◀ The site topsoil should be stripped across the entire working area and retained onsite in readiness for sand amelioration and reuse;
 - ◀ A suitable storage area should be identified to avoid excessive movement of materials once deposited.
- ◀ Level adjustments;
 - ◀ Cut and fill earthworks operations should be carried out to achieve the desired formation surface for the pitches.
 - ◀ The entire formation surface should be consolidated and lightly graded using laser-controlled equipment to smooth out irregularities and achieve a smooth formation surface free of dips and hollows, marrying in with the adjacent land prior to the importation of topsoil.
- ◀ Sand importation and spreading;
 - ◀ It is recommended that a good quality sports sand is imported to ameliorate into the topsoil prior to spreading over the prepared formation surface to provide a minimum firmed depth of 200 mm. The sand should meet the requirements of the drainage design specification.
 - ◀ Laboratory analysis of any proposed sand material must be carried out prior to importation to confirm suitability.
- ◀ Drainage installation;
 - ◀ It is recommended that an intensive network of lateral drains at 4-5m centres is installed across the pitch area to collect and discharge surface water. The lateral drains should be installed after topsoil placement.
 - ◀ Lateral drains for a scheme of this nature typically consist of 80mm diameter uPVC perforated land drainage pipes, placed in trenches on a bed of drainage aggregate. The recommended drainage aggregate is 2-6mm gravel. All drains should be laid with steady falls not less than 1:200 (0.5%). The lateral drains should be finished to the surface with an imported rootzone material.

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- ◀ Lateral drains should connect into a network of main carrier drains to transport surface water to a suitable outfall location. There may be a requirement for a small amount of additional attenuation or flow control to mitigate outflow during storm events when finalising the drainage outfall location.
 - ◀ Main carrier drains for a scheme of this nature typically consist of 150 mm diameter uPVC perforated land drainage pipes, placed in trenches on a bed of drainage aggregate. The recommended drainage aggregate is 2-6mm gravel. All drains should be laid with steady falls not less than 1:200 (0.5%). The main drains should be finished to the surface with an imported rootzone material.
 - ◀ The proposed drainage design should include the provision of silt chambers and inspection chambers at strategic locations along the line of the main carrier drains.
 - ◀ A secondary drainage system of either slit drains or sand bands should be installed at 0.5m centres, to a minimum depth of 200mm to connect with the permeable drainage aggregate in the primary drainage system.
 - ◀ Both secondary drainage options would be beneficial, however slit drains are more robust and lasting compared to sand bands. Whilst cheaper and easier to install, sand bands are not as resilient, especially for rugby and lacrosse etc.
- 6.8 As the proposal progresses, consideration will need to be given to fully understanding the required maintenance regime and running costs that would be required to ensure that quality is sustainable and affordable (both in terms of pitches and ancillary facilities). This falls outside of the remit of this study and will need to be determined in conjunction with Poynton Sports Club by means of ensuring that it is comfortable from a business case and financial modelling perspective. However, STRI indicates that, whilst there may be a requirement for increased maintenance, this should be viewed against operational efficiency that may currently be hindered by the multi-use of various surfaces rather than more standalone facilities being provided. It will therefore likely be easier to plan maintenance actions at the new site compared to existing Poynton Sports Club site as the volume of use will be spread over a wider variety of surfaces.
- 6.9 Additionally, the creation of the relocation site and the additional facilities that are to be provided should enable a greater level of income to be generated, which should then enable more resource to be put into the maintenance regimes. This will then help to offset the additional costs that could be incurred.

Green Belt

- 6.10 The Council is mindful that the site falls within the Green Belt. Paragraph 141 of the NPPF (2019) states that, once the Green Belt has been defined, local planning authorities should plan positively to enhance their beneficial use, such as looking for opportunities to provide access to and opportunities for outdoor sport and recreation. Paragraph 145 of the NPPF (2019) states that the provision of appropriate facilities for outdoor sport is not seen as inappropriate development in the Green Belt, providing that it preserves the openness of it and does not conflict with the purposes of including land within it.
- 6.11 Based on the above, the Council is aware that there is the potential for the Glastonbury Drive site to include some development that would be defined as inappropriate development in the Green Belt. As such, any harm that could arise to the Green Belt, by reason of inappropriate development, impact on the openness of the Green Belt and conflict with the purposes of the Green Belt would need to be minimised whilst also meeting the requirements of paragraph 97 (b). However, the Council is also looking to promote a policy-led approach to the site's development and, through that approach, is presenting this opportunity as part of a wider strategy to enable housing growth and significant sports investment to take place across Poynton. In this context, the Council considers that there is a clear justification for enabling a degree of inappropriate development, albeit with any Green Belt impacts being minimised.

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- 6.12 If the relocation of Poynton Sports Club to Glastonbury Drive could not be achieved due to the site's Green Belt Status, then clearly the residential development of the existing Sports Club site could not proceed either. In addition, it would prevent the opportunity for quantitative playing pitch mitigation at Glastonbury Drive to enable the residential developments to take place as proposed on the school sites identified for housing allocations. This illustrates the interdependencies between the sites and why a comprehensive and joined up approach is being taken through the SADPD towards these proposals.
- 6.13 The Council also acknowledges that various surveys, such as for bats and newts, will need to take place to ensure that the site and all of the proposed facilities are developable. In relation to cricket, a ball-strike assessment may still also be required to ensure that the location of the square does not prejudice its use or the use of the other provision.

Cost indications

- 6.14 Whilst full costings are not known at this stage, potential capital costs for providing the sports facilities proposed at land north of Glastonbury Drive have been calculated via use of Sport England's Design and Cost Guidance. This tool is based on good practice and experience drawn from a number of projects, with estimates made for what it typically costs to build modern sports facilities, taking into account varying conditions, inflation and regional adjustments. However, it must be noted that it does not include additional expenses that will need to be incurred at the site, such as for the potential need for earthworks and drainage. It also does not include costs associated with the need for an access road, car parking and services.
- 6.15 The total estimated cost of providing the facilities is £3,977,070, as detailed below. However, STRI reports that it has previously been involved with delivering projects of a similar scale that ranged from £1.8 million to £2.1 million, stating that the final cost will be determined by the amount of earthworks and the influence of the pipeline traversing the site. The figures in the following table are therefore only indicative.

Table 6.1: Potential facility costs at land north of Glastonbury Drive (Sport England's Design and Cost Guidance)

Facility	Cost indication
Clubhouse (incl. 12 changing rooms)	£2,070,000
Three adult football/lacrosse pitches	£300,000
One youth football pitch	£80,000
Three mini football pitches	£75,000
One cricket square	£295,000
Four cricket practice nets	£140,000
Eight floodlit tennis courts (macadam surface)	£715,000
Two bowling greens	£300,000
Total	£3,977,070

- 6.16 Please note that, as part of the above costs, Sport England's Design and Cost Guidance includes a 12-month maintenance/grow-in costs for grass pitches. This covers the "bedding in" period of the facilities.
- 6.17 Sport England's Design and Cost Guidance also provides recommended life cycle costs, providing detail as to how much it will cost to keep facilities open and fit for purpose. This includes costs for eventual replacement, maintenance and day-to-day repairs and is expressed as a percentage of the capital cost of providing each facility type.

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Table 6.2: Potential life cycle costs at land north of Glastonbury Drive

Facility	Sinking fund	Maintenance
Clubhouse (incl. 12 changing rooms)	-	-
Three adult football/lacrosse pitches	4.4%	16.7%
One youth football pitch	4%	17%
Three mini football pitches	4%	17%
One cricket square	4.9%	15.3%
Four cricket practice nets	2.7%	0.2%
Eight floodlit tennis courts (macadam surface)	1.2%	0.4%
Two bowling greens	0%	6.3%

Site PYT 3: Land at Poynton High School

- 6.18 The primary aim of the inspection of Poynton High School was to ascertain whether the existing playing pitches could be reconfigured and retained within the remaining available space on-site once the development area was removed. The inspection determined that, through reconfiguration and qualitative improvements, particularly to drainage, overall performance will improve. No immediate constraints were identified and the playing pitch requirements could be accommodated without any issues such as ball-strike (which a proposed layout takes into account, although a formal risk assessment may still be required to confirm).
- 6.19 An inspection was also carried on the existing macadam area that is identified as the future location for the establishment of a 3G pitch.
- 6.20 Key points are as follows:
- ◀ Qualitative mitigation of the area proposed to be lost for housing is possible by reconfiguring the existing facilities and providing upgrades to allow for additional usage and usability.
 - ◀ Upgrading or replacing the existing lateral field drainage system with a functioning primary and secondary drainage system will increase potential usability given the heavy soils assessed.
 - ◀ Adjusting the position of the non-turf cricket wicket will provide more flexibility to adjust pitch sizes and orientation for different codes and age groups (e.g. for football and rugby).
 - ◀ There are no constraints to the reconfiguration and sports surface development works.
 - ◀ With some remodelling, it should be possible to install a 3G pitch in the macadam area currently used for tennis/netball courts, adjacent to the School building.

Cost indications

- 6.21 Within the Council's S77 application for Poynton High School, a valuation of £1.25 million has been included. It is considered that the bulk of this will go towards the installation of the 3G pitch; however, there is a possibility of Football Foundation funding contributing towards the cost of this. This would then leave more funding to be channelled towards pitch improvements.

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Site PYT 4: Former Vernon Infants School

6.22 The inspection of the Former Vernon Infants School focused on whether the existing two football pitches could be retained and improved following the development. To that end, the inspection has determined that relocating both slightly to the west would achieve this, with appropriate run-off areas provided. No obvious constraints were noted during the visit that would impact on the proposal.

6.23 In summary:

- ◀ The uniform grade of the site suggests that the proposals outlined could be easily enforced.
- ◀ The natural slopes identified offer substance towards a simple drainage network infrastructure being installed to allow improved playing conditions to be developed; this would also allow greater facility accessibility and playability for the wider community.
- ◀ In the absence of an identifiable outlet for the drainage, SuDS could be implemented to assist with the improvements.
- ◀ Bio-attenuation or a soakaway are possibilities in the north west corner of the site, however, further investigation would be required to determine the viability of this option.
- ◀ Upon removal of the artificial cricket wicket, reinstatement of turf in that area would need to integrate into the existing surrounding surface levels in order to minimise future issues once the new pitches are in place.

Cost indications

6.24 No cost indications have been formulated as of yet for the site. However, it is considered that these will be relatively minimal in comparison to the other proposed allocations as the required work is much less significant.

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PART 7: CONCLUSION

- 7.1 There is a clear need for appropriate mitigation measures to be put into place relating to the featured proposed allocations in Poynton. This paper has therefore looked to outline what is required, whilst also assessing the deliverability of what has been set out to understand what work would be needed to enable the proposals. Based on this, and for ease of reference, the table overleaf summarises the requirements identified.
- 7.2 Implementing a collective approach to the proposed allocations will be viewed positively by Sport England due to the resultant net gain in playing field land and the qualitative improvements that will take place.
- 7.3 The next step will be to further investigate the sites and the work that will be required, particular at Glastonbury Drive and in relation to its Green Belt status. This is to better understand the timescales involved and the full cost implications, not just for the delivery of the proposals but also for the ongoing maintenance and running costs. As part of this, the findings will also need to be discussed with Jones Homes and subsequently other developers that may take an interest in the other proposed allocated sites so that they fully understand what requirements will fall upon them in taking forward their development schemes.

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Table 7.1: Summary of mitigation proposals

Proposed allocation	Sport	Current provision	Mitigation requirements	Existing playing field area	Proposed playing field area	Total playing field gain/loss	Running total	
PYT 1: Poynton Sports Club	Football	◀ 1 standard quality adult pitch.	◀ Provision to be mitigated via relocation to Site PYT 2: Land north of Glastonbury Drive.	4.03 hectares	-	-4.03 hectares	-4.03 hectares	
	Cricket	◀ 1 standard quality square with 6 grass wickets. ◀ 3 practice nets.						
	Lacrosse	◀ 2 standard quality pitches (over marked on cricket square).						
	Tennis	◀ 7 floodlit courts; 3 macadam and 4 artificial.						
	Bowls	◀ 1 crown green.						
	Hockey	◀ 1 smaller sized AGP (which currently accommodates the tennis courts)						
	Ancillary	◀ Dated clubhouse with 6 changing rooms						
PYT 2: Land north of Glastonbury Drive	Football	◀ No existing facilities: site is the relocation site for PYT 1: Poynton Sports Club.	▶ 3 good quality adult pitches, or 2 good quality adult pitches and 1 good quality youth 11v11 pitch. ▶ 1 good quality youth 9v9 pitch. ▶ 1 good quality mini 7v7 pitch. ▶ 2 good quality mini 5v5 pitches.	-	9.59 hectares	+9.59 hectares	+5.56 hectares	
	Cricket							▶ 1 good quality square with at least 14 grass wickets (10 suitable for senior play). ▶ 4 practice nets.
	Lacrosse							▶ 3 good quality pitches (shared with football if necessary).
	Tennis							▶ 7-8 good quality, floodlit courts.
	Bowls							▶ 1-2 good quality crown greens.

SPORTS MITIGATION STRATEGY FOR POYNTON FINAL REPORT

Proposed allocation	Sport	Current provision	Mitigation requirements	Existing playing field area	Proposed playing field area	Total playing field gain/loss	Running total
	Hockey		<ul style="list-style-type: none"> Contributions sought towards the resurfacing of the artificial grass (hockey) pitch at Tytherington High School. 				
	Ancillary		<ul style="list-style-type: none"> Large clubhouse with 12 changing rooms 				
PYT 3: Land at Poynton High School	Football	<ul style="list-style-type: none"> 1 poor quality adult pitch. 1 poor quality youth 9v9 pitch. 1 poor quality mini 5v5 pitches. 	<ul style="list-style-type: none"> 1 standard/good quality adult pitch, or 1 standard/good quality youth 11v11 pitch. 1 standard/good quality youth 9v9 pitch. 3 standard/good quality mini 5v5 pitches and/or mini 7v7 pitches (or increased youth pitch provision covering equivalent space). 1 youth 11v11 floodlit 3G artificial grass pitch. 	5.43 hectares	4.67 hectares	-0.76 hectares	+4.80 hectares
	Rugby union	<ul style="list-style-type: none"> 1 poor quality senior pitch. 	<ul style="list-style-type: none"> 1 standard/good quality senior pitch. 				
	Cricket	<ul style="list-style-type: none"> Disused non-turf wicket (no longer in place). 	<ul style="list-style-type: none"> 1 non-turf wicket, suitably located to avoid ball-strike issues. 				
	Tennis	<ul style="list-style-type: none"> 12 poor quality, non-floodlit courts. 4 standard quality courts, with one floodlit. 	<ul style="list-style-type: none"> 4 good quality courts, with increased floodlighting to be explored. 				
	Netball	<ul style="list-style-type: none"> 4 poor quality, non-floodlit courts. 	<ul style="list-style-type: none"> 2-4 good quality courts (over marked on the retained tennis courts). 				

SPORTS MITIGATION STRATEGY FOR POYNTON FINAL REPORT

Proposed allocation	Sport	Current provision	Mitigation requirements	Existing playing field area	Proposed playing field area	Total playing field gain/loss	Running total
PYT 4: Former Vernon Infants School	Football	<ul style="list-style-type: none"> ◀ 1 standard quality youth 11v11 pitch. ◀ 1 standard quality youth 9v9 pitch. 	<ul style="list-style-type: none"> ◀ 1 good quality youth 11v11 pitch. ◀ 1 good quality youth 9v9 pitch. 	2.19 hectares	1.99 hectares	-0.20 hectares	+4.60 hectares
	Cricket	<ul style="list-style-type: none"> ◀ A disused, poor quality non-turf wicket. 	<ul style="list-style-type: none"> ◀ 1 non-turf wicket located elsewhere to service demand from North East Cheshire CC (either at land north of Glastonbury Drive or at Disley Amalgamated Sports Club. 				
Overall				11.65 hectares	16.25 hectares	+4.60 hectares	+4.60 hectares

SPORTS MITIGATION STRATEGY FOR POYNTON FINAL REPORT

APPENDIX 1: STRI ASSESSMENTS.

Land north of
Glastonbury Drive.

Poynton High
School

Former Vernon Infant
School



Making great sport happen

Knight, Kavanagh & Page

Glastonbury Drive - Poynton Sports Pitch Feasibility Report

Client Ref: J004908

Prepared by: Gwynn Davies

Date: 19/05/21

Revision B



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Report Title: Sports Pitch Feasibility Report

Sports Facility Name: Poynton Sports Club

Date of Visit: 12th February 2021

Visit Objective: Initial site appraisal

If you have any queries with regards to this report please call +44 (0)1274 565131 or email enquiries@strigroup.com

This report has been produced in good faith for exclusive use by Knight, Kavanagh & Page (KKP) in relation to the development of the proposed natural grass sports pitch at Glastonbury Drive. STRI accept no liability or responsibility whatsoever in respect of any use of this report beyond the scope of its application by any third party. The report is the property of STRI and may not be copied nor reproduced without prior written approval of STRI except for the purposes of dealing specifically with the management and implementation of this project.

Prepared by Gwynn Davies

Date: 09/03/2021



1.0 Introduction and Background

1.1 General

STRI has been appointed by Knight, Kavanagh & Page (KKP) to assess the feasibility of developing natural grass sports pitches on an area of land to the north of Glastonbury Drive in Poynton. STRI understand that the proposed development consists of a number of natural grass sports pitches and associated infrastructure due to the relocation of Poynton Sports Club.

In its current configuration, the proposed site is an agricultural field which has been largely unmanaged for a period of time.

As such, the objectives of the appraisal are summarised below:

1. To review existing site information made available to STRI.
2. To investigate the location to identify particular constraints relating to:
 - Surface levels and earthworks.
 - Topsoil and ground conditions.
 - Drainage conditions and drainage infrastructure present.
3. To provide recommendations for the works required to develop the proposed sports surfaces including natural turf pitches within the site.

The report includes a photographic record of the conditions observed during the site visit. Additional site visit photos shall be made available upon request.

Representative samples of topsoil were collected for physical and chemical analysis. The results of the soil laboratory analyses are set out in table form within the general site description to enable comparison of the results. The full soil analysis reports are included as appendices to this report.

1.2 Site Appraisal

The site was inspected on 12th February 2021 by Gwynn Davies, STRI Consultant Agronomist and Mike Rowley, STRI Digital Design Manager.

1.3 Reporting

The data obtained from the site survey is reported in a standard format, containing the following information:

- General site information.
- The type and condition of the vegetation and presence of weeds.
- The general geological and soil conditions.
- The type and condition of the soil profile and drainage systems present.
- General hydrology and drainage conditions including potential outfalls.
- The overall performance is discussed with comments on the significant limiting factors.
- Recommendations on the required works to develop natural grass sports surfaces on the site, however these may be dictated by anticipated usage levels.

2.0 General Site Description

2.1 Location

Site Address: Land to the north of Glastonbury Drive, Poynton, SK12 1BW.

Figure 1 illustrates the locations of the STRI proposed sports pitches and associated infrastructure. Note the original drawing was made available to STRI for the purposes of this report and is included as Appendix 5.

The area within the scope of this report is a large roughly rectangular shaped parcel of land, located to the South of Poynton Brook and West of an existing ditch which marks the Eastern boundary between the site and agricultural fields as illustrated by the red line in Figure 2. The location of the ditch is highlighted by the blue arrows.



Figure 1: Layout of STRI proposed sports pitches. Pipeline traversing the site is shown by the red line.

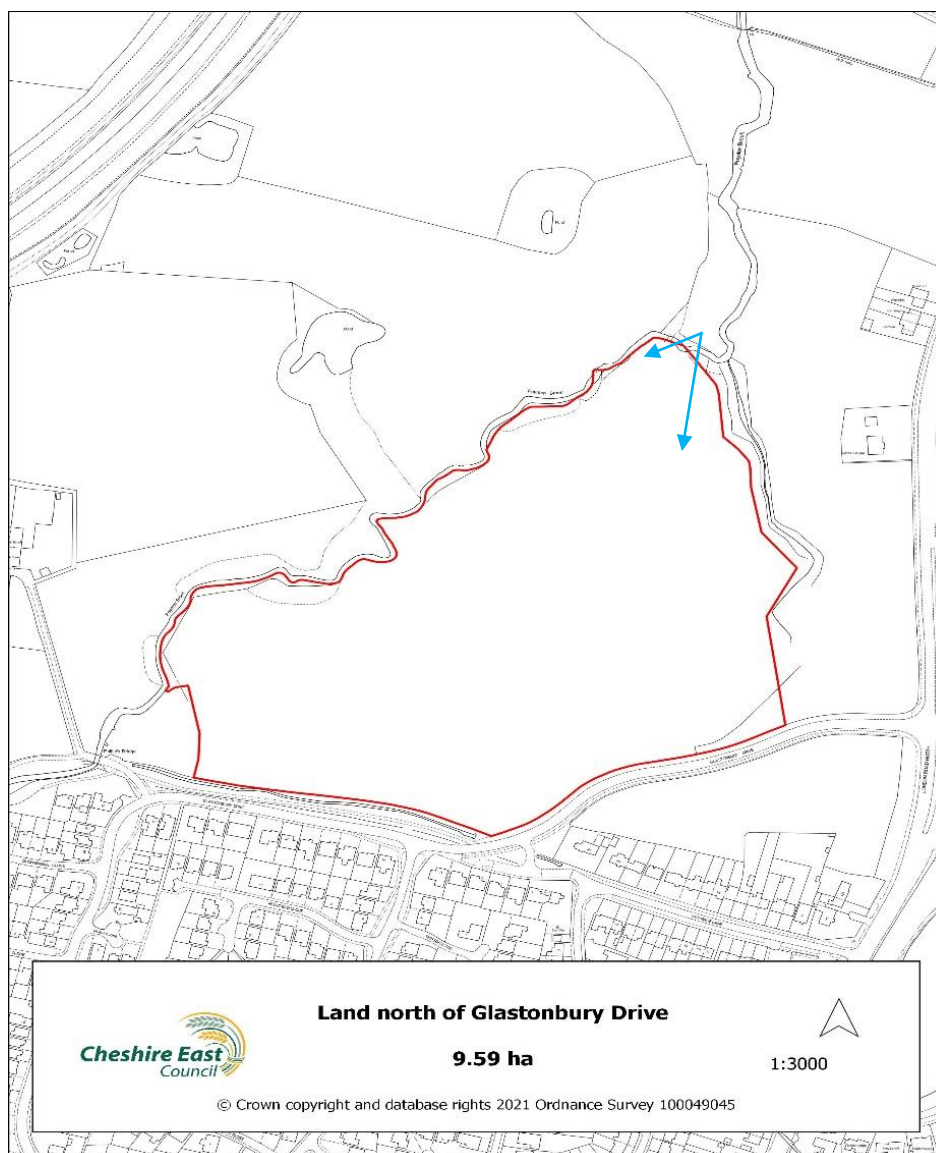


Figure 2: Area within scope of STRI feasibility study (demarcated by red line). The ditch location is shown by blue arrows.

Hereafter, the area within the scope of the STRI feasibility study as illustrated in Figure 2 will be referred to as ‘the Site’.

The site area measures approximately 96,000 m² (9.6 hectares) and consists of agricultural land which was covered with unmanaged grasses and other vegetation at the time of the investigation. The site has historically been used for agricultural purposes with very few changes observed on historical maps. There were no areas of hardstanding’s or structures present within the site boundary. The existing access to the site is directly off Glastonbury Drive.

The site is bound to the South by Glastonbury Drive and to the North by Poynton Brook. The site is surrounded by managed agricultural grassland to the North and West. There are some mature trees along the Southern, Western and Northern boundaries of the site.

There appears to be sufficient space to accommodate all of the pitches within the site boundary, adhering to Sport England guidelines.

2.2 Existing Sports Facilities

There were no existing developed sports facilities within the site boundary.

2.3 Topography and Surface Evenness

2.3.1 Levels and Gradients

Surface levels and gradients have been assessed based on a topographic survey carried out by both STRI and others (see Appendix 4).

The site has a pronounced, roughly diagonal fall from the north east corner to the south west corner.

The highest ground levels were observed along the Southern boundary of the proposed site (87.97 m). The lowest ground levels were observed along the Northern boundary with the brook (84 m).

Based on the topographic information as reviewed by STRI, it can be confirmed that minor cut and fill earthworks operations will be required to develop suitable pitch platforms with a uniform grade to meet Sport England Requirements.

2.3.2 Surface Evenness

Surface evenness within the site under examination was generally flat with two distinct plateaus interspersed with numerous surface dips and hollows where smaller flat areas prevailed. A number of distinct gully's and steep embankments were noted within the Northern section of the site and along the site boundary with the brook to the North. Any surface undulations would be addressed during the cut and fill earthworks operation which would aim to create suitable pitch platforms with a uniform grade.

Figures 1, 2 and 8 all illustrate the evenness of the site on a macro scale and show the extent of the plateau areas highlighted for development. Across the whole site there are areas with natural drainage features (Figures 8 & 9).

2.4 Existing Vegetation

At the time of the investigation, the existing surface vegetation was predominantly agricultural grassland having been largely unmanaged other than to use as livestock grazing, resulting in the development of different grass and weed species. The grass species present included *Lolium* sp. (Ryegrass), *Festuca* sp. (Fescue) *Holcus lanatus* (Yorkshire fog), *Dactylis glomerata* (Cocksfoot) and *Poa annua* (Annual Meadowgrass).

The broad-leaved weeds observed included but were not limited to the following:

- *Trifolium repens* (White clover)
- *Taraxacum* (Dandelion)
- *Plantago lanceolata* (Ribwort Plantain)
- *Cirsium* (Thistle)
- *Urtica dioica* (Common nettle)

The low-lying, heavily vegetated river, located immediately to the north of the site included various shrubs, including but not limited to:

- *Rubus* (Bramble)
- *Ulex europaeus* (Gorse)
- *Salix* (Willow)

There were *Juncus effusus* (soft rushes) observed in the low-lying areas to the North-East of the site. The presence of *Juncus effusus* is often an indicator of poorly drained or waterlogged soil conditions. There was standing water and very soft ground conditions observed in this area at the time of the investigation.

There were no invasive plant species observed during the site investigation.

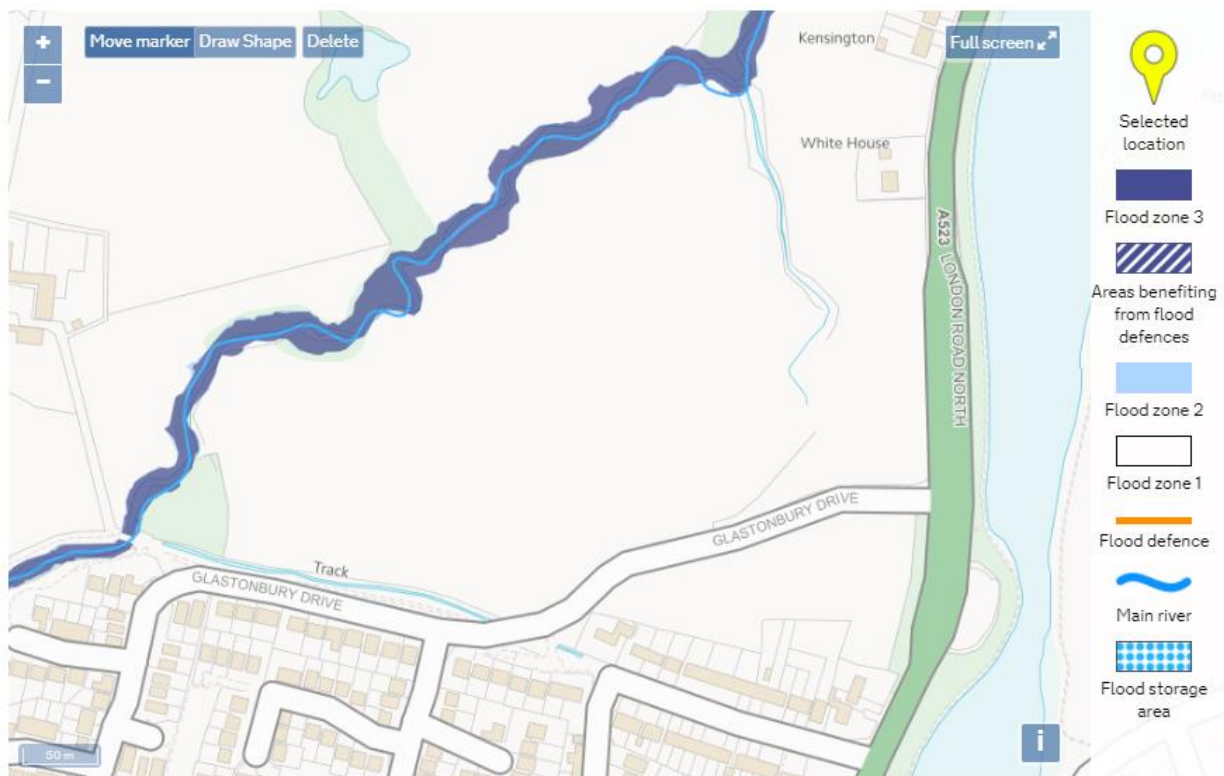
All perennial weeds, shrubbery and surface vegetation should be thoroughly removed or killed off to prevent re-infestations as part of any development works.

2.5 Geoenvironmental Site Assessments and Ground Investigations

The following Geoenvironmental Site Assessments and Site Investigations had been carried out by others and made available to STRI for the purposes of this report, further information can be found here [UK Soil Observatory \(bgs.ac.uk\)](http://UKSoilObservatory.bgs.ac.uk).

The above have been reviewed in relation to the development of the proposed pitch and are summarised below:

- No made ground is indicated to be present on the site.
- Geological maps indicate that the site is underlain by Glaciolacustrine commonly of a silts and clays matrix, with evidence of River terrace, sand, and gravel to the north by the brook.
- It was determined that the site was not in the likely zone of influence of any present underground coal workings. [Interactive Map Viewer | Coal Authority \(bgs.ac.uk\)](http://InteractiveMapViewer.CoalAuthority.bgs.ac.uk)
- The closest body of water is Poynton Lake to the east almost adjacent to the site with the closest stream, Poynton Brook located to the northern edge of the site
- The Environment Agency flood map is included below for reference showing no major restrictions to site development



- The site does not fall within a Groundwater Source Protection Zone.
- There are no historic landfills within 250 m of the site (<https://environment.data.gov.uk/DefraDataDownload/?mapService=EA/HistoricLandfill&Mode=spatial>)
- There are no designated hazardous sites within 500 m of the site.
- Any drainage systems incorporated into the design should divert potentially contaminated surface water runoff into anthropogenic drainage systems and away from surface water and groundwater receptors.
- The site is likely to have limited potential for infiltration.

In summary, there was no information obtained from previous Geoenvironmental Site Assessments and Site Investigations that would render the site unfeasible for the development of a sports pitch. However, there are issues which will need to be addressed as part of the design of the pitch, particularly in relation to the anticipated limited infiltration rates.

2.6 Topsoil Conditions

It should be noted that the quality of a sports surface is dependent on the soil or growing medium used in its construction. Over working the material can compromise the drainage capability through poor infiltration.

A series of trial pits were excavated during the site investigation at various locations to confirm the topsoil conditions. Figure 5 shows the uniform distribution to an average depth of 300mm before encountering the heavier subsoil.

In summary, the existing site topsoil was of average quality and comprised a homogenous dark brown sandy loam topsoil which had a crumbly structure at the time of the visit. There were minor amounts of

stones and pebbles observed within the topsoil profile but were no cause for concern. Earthworm activity was observed throughout.

There were some signs of compaction. However, good rooting depth was observed at all test locations with roots penetrating through the topsoil profile to a maximum depth of 150 mm. This illustrates that the compaction was not excessive nor detrimental to root development.

The depth of topsoil observed ranged from 280 - 310 mm. The average depth of topsoil observed was 300 mm.

It should be noted that in the majority of trial pits, the transition from topsoil to the underlying subsoil was distinct and there was a clear colour change observed. Excavation was also more difficult in the heavier subsoil. The underlying subsoil material was consistent across the site and consisted of a clay dominated material. It can be anticipated that the infiltration rate of the site subsoil will be very low.

Particle Size Analysis

Representative samples of topsoil were collected for particle size analysis to determine the mineral and organic matter composition of the site topsoil. Full particle size analysis reports are included in Appendix 1.

For reference, winter games pitch topsoil should fall into the loamy sand or sandy loam textural classification to enable suitable drainage performance.

Sample Location & STRI lab no.	Soil Texture	Sand %	Silt %	Clay %	Organic Matter %
Topsoil Sample 1 Representative topsoil sample Proposed pitch area – West A18815/1	Sandy loam	65	22	13	8.6
Topsoil Sample 2 Representative topsoil sample Proposed pitch area – North A18815/2	Sandy loam	58	25	17	5.9
Topsoil Sample 3 Representative topsoil sample Proposed pitch area – East A18815/3	Sandy loam	60	23	17	6.8
Topsoil Sample 4 Representative topsoil sample Proposed pitch area – South A18815/4	Sandy loam	59	24	17	8.1

Laboratory analysis confirms that the site topsoil falls into the sandy loam textural classification. The site soil has a high proportion of fine particles ('fines') comprised of 13-17% clay, 22-25% silt and 15% very fine sand. There was a broader dispersion of larger very coarse, coarse, and medium sized sand particles.

The high proportion of fine particles observed means the hydraulic conductivity of the topsoil is likely to be low, and as such, the soil will have a high-water holding capacity. This is not conducive to the development of a football pitch surface which must be efficiently drained to ensure playability all year round.

The organic matter content of the site soils was within the acceptable range.

The existing topsoil has limited permeability therefore the redevelopment should include a primary and secondary drainage system. Consideration should be made for amending the existing site topsoil with an appropriate sand material to increase drainage performance.

Chemical Analysis

Representative samples of topsoil were collected for chemical analysis to determine the pH, extractable Phosphate (P_2O_5) and extractable Potassium (K_2O) levels in the site topsoil.

The chemical analysis of the samples taken across the site is summarised below with more detailed results shown in Appendix 2.

Sample Location & STRI lab no.	pH	pH Status	P_2O_5 Level (mg/l)	P_2O_5 Status	K_2O (mg/l) Level	K_2O Status
Topsoil Sample 1 Representative topsoil sample Proposed pitch area – south half A18815/1	6.5	Normal	23	Normal	58	Low
Topsoil Sample 2 Representative topsoil sample Proposed pitch area – north half A18815/2	6.5	Normal	18	Normal	27	Low
Topsoil Sample 3 Representative topsoil sample Proposed pitch area – north half A18815/3	6.3	Normal	24	Normal	65	Low

Topsoil Sample 4 Representative topsoil sample Proposed pitch area – north half A18815/4	7.0	Normal	67	Normal	171	Normal
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Soil pH has a significant effect on the grass species which dominate the turf. For turf dominated by perennial ryegrass, for optimal growth and recovery from wear, soil pH should be in the range 6-6.5. Laboratory analysis shows a pH of 6.3 – 7.0 in the samples of topsoil collected. Although this is mildly acidic, it should allow perennial ryegrass to thrive.

Laboratory analysis shows that concentrations of extractable phosphate and potassium were generally low. For healthy turf growth, phosphate and potassium should be included as part of a balanced fertiliser programme. This can be addressed during the pitch construction and longer-term maintenance thereafter and is not of concern.

2.7 Drainage Conditions and Systems

Overall, there were no variations in firmness across the site at the time of the investigation and there were no areas of standing water. It should be noted that the site investigation was carried out during a period of freezing weather and early in the site visit the soil surface was frozen to 30mm depth.

When walking across the grassland areas there were no obvious signs of existing agricultural land drainage being present in the form of visible lines of stimulated or droughted grass growth. Inspection chambers were found across the site along with two clay culvert pipes discharging in the direction of the brook. The origin of these pipes is unknown. When assessing historical aerial photography of the site, there was no evidence indicating the presence of agricultural drainage systems.

Given the expected low natural infiltration of the site subsoil, an intensive sports pitch drainage system should be included within the design of the proposed pitch.

A prominent feature of the site was the existing ditch to the East of the proposed pitch area which ultimately connects into the brook to the North of the site. This presents a possible outlet for any proposed pitch drainage systems, as do many of the natural swales and furrows elsewhere on the site. Their viability will need to be investigated further to determine suitability. Based on the size of the site and the nature of the development SuDS may need to be integrated into the scheme to meet planning constraints i.e. attenuation and/or soakaways. Lower lying areas close to the brook were dominated by rushes that suggests prolonged periods of waterlogging occur in these areas (Figures 6&7). Subject to further investigation, these could be utilised to satisfy SuDS as they will not be viable for pitch development.

2.8 Utilities

The presence of any existing services should be confirmed in advance of any works commencing. This is especially important considering the large pipeline traversing the site and crossing the brook in the North-East corner of the site (Figure 10). During the site assessment no obvious constraints from underground or overground services were noted. A 10 metre easement zone has been outlined astride the pipeline on the proposed pitch layout.

See also appendix 6 and 7 which included layout option that would avoid placing any building directly over the line of the pipe.

3.0 Discussion

When considering the development of a new sports pitch at this site, the following points should be considered:

- The space available is sufficient to accommodate the mitigation of sports pitches from Poynton Sports Club.
- The space available is sufficient to accommodate the proposed Jones Homes sports pitches with suitable safety runoff margins around all sides.
- The proposed location of the new Clubhouse should be reviewed to maximise the use of the existing flat area of ground for the development of sporting facilities. This is to avoid unnecessary and potentially costly extensive earthworks elsewhere on the site to create similar terrain. That said, this does not take into account other planning considerations that may also influence the layout of the site, particularly the location and form of the clubhouse building
- The site is an unmanaged agricultural grassland field vegetated with various grass, weed and shrub species. The existing vegetation should be thoroughly killed off and removed to enable the pitch development works and to prevent re-infestation.
- The site is characterised by two prominent plateau areas, interspersed by natural gullies, that gradually fall from the Southeastern corner to the Northwestern corner. A cut and fill earthworks operation will be required to achieve a suitable formation surface for the proposed pitch construction. The quantum should be calculated to ensure the formation surface can be formed without the need to export or import materials.
- The primary limiting factor is the site topsoil which laboratory analysis has confirmed is a sandy loam with a high percentage of fine particles ('fines'). It can be anticipated that the site topsoil will have very poor drainage characteristics, which may be exacerbated by maintenance and play (wear). As such, the site topsoil should be appropriately ameliorated with enough sand material to make it suitable for the pitch construction works.
- The site subsoil is a clay dominated material which displayed signs of seasonal waterlogging. It can be assumed that natural infiltration is likely to be minimal. A comprehensive sports pitch drainage system will be required as part of the pitch design. The brook to the North of the site and the associated ditches across the site all present potential outfall solutions. Floodplain type features alongside the brook offer great potential for Sustainable Drainage Solutions (SuDS) to be utilised along with bio-diversity net gain of the site.
- There are no concerns with site access for pitch construction plant and materials.
- The wettest months of the year at the site are October, November, December and January. This coincides with the months with low average minimum temperatures. Winter rainfall coupled with low levels of evaporation mean drainage is likely to be the main limiting factor affecting the quality of the natural grass surface during the winter months of the year.

4.0 Recommendations

4.1 General

Based on the laboratory analysis, it is reasonable to assume that the site topsoil will have limited drainage performance resulting in unsatisfactory surface conditions after rainfall. This may be exacerbated by the inevitable high wear and subsequent compaction, particularly under wet conditions.

To improve the drainage performance of the site topsoil, it is possible to modify the topsoil so that it is free draining even after the compacting effects of play. This involves adding sufficient quantities of uniform sand to the soil (known as sand amelioration) so that a permanent network of large pores is formed. The amount of sand added is critical, as adding too little sand can sometimes produce worse results than just using the site topsoil without the addition of sand. A critical threshold of sand is required before there is any significant improvement in the physical properties of the soil.

However, sandy loam soils such as those observed at Glastonbury Drive will require additional volumes of sand, typically in the region of 5 parts sand to 1 part of soil. There is clearly a cost implication to importing such a volume of sand and it is doubtful whether such a ratio could be mixed accurately, even if such a rich soil was in a sufficiently friable state for mixing. Therefore, amending the topsoil and including a robust drainage system (primary and secondary) would be recommended.

The exact pitch construction type will be largely dependent on the proposed level of use, the required pitch quality, the budget available and the surface water management strategy. As a minimum, it is recommended that the following construction methodology is considered.

4.2 Recommended Construction Methodology

4.2.1 Initial Site Clearance

- In advance of the works, the existing vegetation should be cut as short as possible using suitable grass cutting machinery. Given the unmanaged nature of the vegetation observed, the vegetation should be cut and bailed using agricultural type equipment. Any shrubbery within the working area should be removed at this stage.
- Thereafter, a total non-residual herbicide should be applied to the entire working area using a tractor mounted sprayer or similar.

4.2.2 Topsoil Stripping and Storage

- The site topsoil should be stripped across the entire working area and retained onsite in readiness for sand amelioration and reuse.
- Identify a suitable storage area and avoid excessive movement of materials once deposited.

4.2.3 Level Adjustments

- Cut and fill earthworks operations should be carried out to achieve the desired formation surface for the pitch.

- The entire formation surface should be consolidated and lightly graded using laser-controlled equipment to smooth out irregularities and achieve a smooth formation surface free of dips and hollows, marrying in with the adjacent land prior to the importation of topsoil.

4.2.4 Sand importation and Spreading

- It is recommended that a good quality sports sand is imported to ameliorate into the topsoil prior to spreading over the prepared formation surface to provide a minimum firmed depth of 200 mm. The sand should meet the requirements of the drainage design specification
- Laboratory analysis of any proposed sand material must be carried out prior to importation to confirm suitability.

4.2.5 Drainage Installation

- It is recommended that an intensive network of lateral drains at 4 - 5 m centres is installed across the pitch area to collect and discharge surface water. The lateral drains should be installed after topsoil placement.
- Lateral drains for a scheme of this nature typically consist of 80 mm diameter uPVC perforated land drainage pipes, placed in trenches on a bed of drainage aggregate. The recommended drainage aggregate is 2 – 6 mm gravel. All drains should be laid with steady falls not less than 1:200 (0.5%). The lateral drains should be finished to the surface with an imported rootzone material.
- Lateral drains should connect into a network of main carrier drains to transport surface water to a suitable outfall location. Depending on drainage discharge conditions; there may be a requirement for a small amount of additional attenuation or flow control to mitigate outflow during storm events when finalising the drainage outfall location.
- Main carrier drains for a scheme of this nature typically consist of 150 mm diameter uPVC perforated land drainage pipes, placed in trenches on a bed of drainage aggregate. The recommended drainage aggregate is 2 – 6 mm gravel. All drains should be laid with steady falls not less than 1:200 (0.5%). The main drains should be finished to the surface with an imported rootzone material.
- The proposed drainage design should include the provision of silt chambers and inspection chambers at strategic locations along the line of the main carrier drains.
- It is recommended that a secondary drainage system of either slit drains or sand bands is installed at 0.5 m centres, to a minimum depth of 200 mm to connect with the permeable drainage aggregate in the primary drainage system using a Koro Top Drain machine. The backfill for this system should be an approved medium/fine sand. This should be installed after topsoil importation and spreading.

- Both secondary drainage options would be beneficial however slit drains are more robust and longer lasting compared to sand bands. Whilst cheaper and easier to install, sand bands are not as resilient especially with football, rugby, lacrosse etc.

Signed

A handwritten signature in black ink, appearing to read 'Gwynn Davies', with a horizontal line underneath.

Gwynn Davies – BSc (Hons), MBPR

Consultant Agronomist

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Appendix 1 – Soil Particle Size Analysis

STRI

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SOIL PARTICLE SIZE ANALYSIS

CLIENT: KKP - POYNTON DATE : 26/02/21
 GLASTONBURY DRIVE RESULTS TO : GD
 DESCRIPTION: TOPSOIL 1 SAMPLE NO : A18815/1

CATEGORY	DIAMETER mm	%
Stones	>8	2
Coarse gravel	8-4	2
Fine gravel	4-2	2

Particle size distribution of mineral matter smaller than 2mm

Very coarse sand	2-1	2
Coarse sand	1.0-0.5	6
Medium sand	0.50-0.25	21
Fine sand	0.250-0.125	21
Very fine sand	0.125-0.050	15
Silt	0.050-0.002	22
Clay	<0.002	13
Loss on ignition (% of oven-dry fine earth)		8.6
Calcium carbonate %		NIL
SOIL TEXTURE		SANDY LOAM

T = TRACE

THESE RESULTS PERTAIN ONLY TO THE SAMPLE(S) SUBMITTED AND TESTED

SOIL PARTICLE SIZE ANALYSIS

CLIENT: KKP - POYNTON DATE : 26/02/21
 RESULTS TO : GD
 DESCRIPTION: TOPSOIL 2 SAMPLE NO : A18815/2

CATEGORY	DIAMETER mm	%
Stones	>8	T
Coarse gravel	8-4	1
Fine gravel	4-2	1

Particle size distribution of mineral matter smaller than 2mm

Very coarse sand	2-1	2
Coarse sand	1.0-0.5	5
Medium sand	0.50-0.25	17
Fine sand	0.250-0.125	19
Very fine sand	0.125-0.050	15
Silt	0.050-0.002	25
Clay	<0.002	17
Loss on ignition (% of oven-dry fine earth)		5.9
Calcium carbonate	%	NIL
SOIL TEXTURE		SANDY LOAM

T = TRACE

THESE RESULTS PERTAIN ONLY TO THE SAMPLE(S) SUBMITTED AND TESTED

SOIL PARTICLE SIZE ANALYSIS

CLIENT: KKP - POYNTON

DATE : 26/02/21

RESULTS TO : GD

DESCRIPTION: TOPSOIL 3

SAMPLE NO : A18815/3

CATEGORY	DIAMETER mm	%
Stones	>8	1
Coarse gravel	8-4	2
Fine gravel	4-2	1

Particle size distribution of mineral matter smaller than 2mm

Very coarse sand	2-1	1
Coarse sand	1.0-0.5	4
Medium sand	0.50-0.25	20
Fine sand	0.250-0.125	21
Very fine sand	0.125-0.050	14
Silt	0.050-0.002	23
Clay	<0.002	17
Loss on ignition (% of oven-dry fine earth)		6.8
Calcium carbonate %		NIL
SOIL TEXTURE		SANDY LOAM

T = TRACE

THESE RESULTS PERTAIN ONLY TO THE SAMPLE(S) SUBMITTED AND TESTED

SOIL PARTICLE SIZE ANALYSIS

CLIENT: KKP - POYNTON DATE : 26/02/21
 GLASTONBURY DRIVE RESULTS TO : GD
 DESCRIPTION: TOPSOIL 4 SAMPLE NO : A18815/4

CATEGORY	DIAMETER mm	%
Stones	>8	5
Coarse gravel	8-4	2
Fine gravel	4-2	3

Particle size distribution of mineral matter smaller than 2mm

Very coarse sand	2-1	3
Coarse sand	1.0-0.5	5
Medium sand	0.50-0.25	17
Fine sand	0.250-0.125	19
Very fine sand	0.125-0.050	15
Silt	0.050-0.002	24
Clay	<0.002	17
Loss on ignition (% of oven-dry fine earth)		8.1
Calcium carbonate %		NIL
SOIL TEXTURE		SANDY LOAM

T - TRACE

THESE RESULTS PERTAIN ONLY TO THE SAMPLE(S) SUBMITTED AND TESTED

Appendix 2 – Soil Chemical Analysis

STRI

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SOIL CHEMICAL ANALYSIS

CLIENT:

KKP - POYNTON

RESULTS TO: GD

DATE RECEIVED:

16/02/2021

Lab No.	Source	pH	P ₂ O ₅ (mg/l)	K ₂ O (mg/l)
A18815/1	GLASTONBURY DRIVE TOPSOIL 1	6.5	23	58
A18815/2	GLASTONBURY DRIVE TOPSOIL 2	6.5	18	27
A18815/3	GLASTONBURY DRIVE TOPSOIL 3	6.3	24	65
A18815/4	GLASTONBURY DRIVE TOPSOIL 4	7.0	67	171
A18815/5	POYNTON HS TOPSOIL	6.4	13	65
A18815/6	VERNON INFANT SCHOOL TOPSOIL	5.8	11	84

Mr M A Baines, Soil Laboratory Manager

THE RESULTS PERTAIN ONLY TO THE SAMPLE(S) SUBMITTED AND TESTED.

Appendix 3 – Site Investigation Photos



Figure 1: The Western plateau viewed from the gate showing the flat nature of the site.



Figure 2: The Western plateau has a possible use for the cricket pitch and Mini football.



Figure 3: Looking East across the site showing the natural undulations and current vegetation status.



Figure 4: Culvert pipe at the sites Northern end discharging from an unknown origin towards the brook.



Figure 5: Typical topsoil profile from the site with 300mm average depth found above a clay subsoil.



Figure 6: Natural low lying areas could be utilised for SuDS to possibly include existing infrastructure (circled).



Figure 7: Marginal vegetated areas along the brook act as a natural filter for discharged water from the site (arrow).



Figure 8: Natural gully's should be considered and utilised for pitch drainage purposes in the design.



Figure 9: Drainage infrastructure can utilise natural ditch features across the site.



Figure 10: Easement zones will be required around the existing pipeline traversing the site.

Appendix 4 – Topographic Survey (combined STRI and others)



Appendix 5 – Proposed Pitch Location (by others)



The original pitch layout proposal by Jones Homes.

Appendix 6 – Alternate Direct Mitigation Layout



Mitigating facilities directly from Poynton sports club



Making great sport happen

KNIGHT, KAVANAGH, AND PAGE (KKP)

MITIGATION STRATEGY ASSESSMENT FOR POYNTON HIGH SCHOOL PLAYING FIELDS

J004908

Report Date: 12 March 2021

Visit Date: 12 February 2021



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Introduction

The aim of the inspection was to determine whether the existing playing pitches could be reconfigured and retained with the remaining available space on-site once the development area was removed. Through reconfiguration and qualitative improvements to the drainage capability, overall performance of the facilities is expected to improve.

An assessment of the site, topographical data, and aerial photography confirms that will be possible to reconfigure the layout and upgrade facilities in order to mitigate against the loss of part of the site.



Fig 1: Aerial image of the High School Site

Site assessment

STRI carried out an inspection at Poynton High School of both the existing tarmac area, identified as a future location for a new 3G artificial pitch, and the natural turf pitches along Dickens Lane.

Topographical survey data was collected from the perimeter of the tarmac and the turf pitches, with any existing drainage infrastructure highlighted.



Fig 2: Tennis courts with macadam base

The tarmac was found to be currently used for tennis, netball, and basketball with a variety of different courts marked out. At the time of the visit tennis infrastructure was in place (Figure 2). A variety of different sockets within the ground exist to change the usage as required. Surface condition was variable with moss ingress being severe around the perimeter of the area. Cracks and some surface deterioration were evident across the platform.

Drainage

Inspection of the tarmac area showed only a single drainage point in the Southern corner (Figure 3 below). Dry conditions during the inspection means no comments can be made of the drainage potential or capability of the tarmac.



Fig 3: Tennis courts drainage outlet grate

Ground conditions were soft underfoot across the whole site following recent heavy rain and snowfall to the point that normal walking deformed the surface and created deep footmarks. Some localised areas in the Northern half of the site did show minor evidence of surface water retention which clearly illustrates that infiltration rates are very low (Figure 6).

Within the remaining area of the playing field site there were several manhole/inspection chambers noted. None were investigated further or inspected internally, and their origins are largely unknown. Determination of any water movement within them was not possible.

Historic searches for aerial photographs of the site show what appears to be an extensive network of drains within the site (Appendix 1). During the site visit two drain lines were found – one along the length of the Eastern boundary and another shorter one perpendicular to the Western boundary. Investigations of both of these found evidence of gravel at depth, however neither revealed an outlet despite the Western channel appearing to end within the embankment next to the pathway.

Levels

The tarmac area levels appeared uniform. Topographical data shows a very gradual slope towards the Southern corner. This is also the location of the only drainage found on the tarmac arena.

The natural turf site showed a consistently level surface with a uniform slope across the site from the Northeast corner to the Southeast corner as identified by topographical data collected on the day by STRI.

No significant variations in levels were noted therefore no significant adjustment earthworks are required.

No constraints were immediately identified on this site and the playing pitch requirements could be accommodated within the remaining area.

Additional Constraints

The manholes/inspection chambers within the turf pitches were found to be proud of the surrounding levels and would require ancillary works to readjust and sympathetically integrate them into the surfaces. Playing surface location and proximity would have to be considered to prevent risk to end users.

In the Northwest corner is a gas box (Figure 2) which could not be accessed nor was any additional information attached relating to its purpose. The location of any related infrastructure could not be identified at the time.

The location of all services within the site boundary would have to be identified prior to any earthworks commencing.

Soil and Agronomic Conditions

The whole site was well grassed and in a healthy condition. Sward length was 100-150mm with no recent evidence of maintenance. This was understandable considering the limitations for machinery created by the unsuitable ground conditions. Very few weeds were noted and those seen are no cause for concern.

Core inspections showed an open structured, saturated soil profile (Figure 4) rich in very fine sand, silt, and clay material (fines) that smeared when removed (Figure 6). Further manipulation and over-working of the core damaged what little structure existed suggesting that natural drainage potential of the site was low. This was supported by localised pockets of surface water retention in the Northern section of the site.

Samples of the soil were harvested and sent away to STRI's laboratory for textural analysis. The results show that the site is dominated by a Sandy Loam soil (Appendix 3) which contain 49% fines. This combined with the

preceding high rainfall would support why ground conditions were volatile and easily deformed when walked on.

To reinstate and improve the performance of all the pitches, further investigation of the existing drainage system is recommended to determine the viability and required works to reinstate it, if possible. The installation of an extensive network of secondary drainage is advised as part of the wider drainage discussion.

Primary pipe drainage will help remove water from site in large volumes, however, to improve the efficiency of the system a network of intercept drains is advised. It is recommended that a secondary drainage system of either slit drains or sand bands are installed at appropriate intervals, to a minimum depth of 200 mm to connect with the permeable drainage aggregate in the primary drainage system. These will help intercept and remove water from the playing surfaces.

Reviews of historic aerial photographs appear to suggest the existence of a drainage infrastructure within the Southern section of the site (Appendix 1). The viability and performance were not investigated during the visit because it could not be located nor verified absolutely. The proposed development area will likely negatively impact a significant proportion of this drainage.

Two areas were identified as having possible pipe infrastructure due to the presence of manholes/inspection chambers – in the South-eastern corner and midway along the Western boundary. These are shown as blue rosettes on the STRI layout proposal.

Layout Discussion

Various field layouts for winter and summer sports have been used over time as identified by reviewing historic aerial imagery.

The current pitch layout on the site consists of 1 adult full size rugby pitch, 1 adult full size football pitch, 3 Mini's/Juniors (7v7) football pitches, 1 9v9 football pitch, a single artificial cricket wicket, and a running track within the Northern section.

Most of the pitches are currently located in the Southern end of the site and will be impacted by the proposed redevelopment and sale of the land along Dickens Lane. STRI proposed changes to the layout identifies more efficient use of the remaining space, whilst also meeting the requirements set out in the PPS for the provision of playing surfaces (Appendix 2).

On the day of the visit the existing pitches were all clearly marked out; however, the cricket wicket was in a state of disrepair and poor condition (Figure 3). No evidence of the cricket boundary markings was found. The running track was clearly defined though this would usually only be marked for summer sports suggesting the area was not in use for winter sports at present.

Mitigation

In order to reduce any requirement for protective netting or barriers to prevent balls from entering the new development, the reconfigured 7v7 Mini's/Juniors and 9v9 pitches along the Southern boundary remain orientated North-South. By rotating the orientation of the larger U15/U16 pitch to an East-West direction, only the Eastern boundary residential houses would be at risk. However, the existing mature trees will provide a natural barrier

Illustration 1 (Appendix 2) shows the STRI proposed new layout for the site that incorporates all the existing playing surfaces and maximises the remaining space.

Realigning the remaining pitches within the remaining area of the site would allow for the cricket wicket to be upgraded and relocated further North within the site. The outfield would be formed by sections of the adult full-sized rugby and football pitches together with two 7v7 Mini's/Juniors pitches. Dimensions of the pitches fall within the Sport England requirements.

To the North of the site, the relocated single artificial cricket wicket maximises this area to allow for boundary lengths/distances to be achieved. Within the outfield will be two 7v7 Mini's/Juniors pitches orientated in the same direction as the cricket wicket.



Illustration 1: STRI proposed changes to the current pitch layout at Poynton High School in line with existing facilities provision.

Summary and Discussion

Key points included below:

- Mitigation of the area lost to housing at Poynton High School is possible by reconfiguring the existing facilities and providing upgrades to allow additional usage and usability.
- With some remodelling it should be also possible to install a 3G artificial in the tarmac area adjacent to the school building currently being utilised for tennis courts.
- Upgrading or replacing existing lateral field drainage system with a functioning primary and secondary drainage system will increase potential usability given the heavy soils assessed.
- Adjusting position of the cricket facilities will provide more flexibility to adjust pitch sizes and orientation for different codes and age groups.
- There are no particular constraints to the reconfiguration and sports surface development works.

Photos



Figure 1: The natural turf pitches area showed uniform levels and a healthy dense turf sward.



Figure 2: Gas infrastructure within the site boundaries needs identifying prior to improvement works commencing.



Figure 3: Artificial cricket wicket is in a state of disrepair. Relocation would enhance the facility and improve remaining layout



Figure 4: Heavy soils dominate the site and are more prone to deformation following heavy rainfall. Additional drainage would enhance long term performance and playability.

Photos



Figure 5: Saturated Sandy loam soils would require primary and secondary drainage to establish consistent performance



Figure 6: The natural slope of the site appears uniform and the lowest point of the site is in the Southwestern corner.

Appendix 1 - Identified Existing Drainage shown as darker lines.



Appendix 2 Proposed Mitigated Layout - STRI



SOIL PARTICLE SIZE ANALYSIS

CLIENT: KKP - POYNTON DATE : 26/02/21
 RESULTS TO : GD
 DESCRIPTION: POYNTON HS TOPSOIL SAMPLE NO : A18815/5

CATEGORY	DIAMETER mm	%
Stones	>8	1
Coarse gravel	8-4	2
Fine gravel	4-2	5

Particle size distribution of mineral matter smaller than 2mm

Very coarse sand	2-1	4
Coarse sand	1.0-0.5	6
Medium sand	0.50-0.25	22
Fine sand	0.250-0.125	19
Very fine sand	0.125-0.050	12
Silt	0.050-0.002	20
Clay	<0.002	17
Loss on ignition (% of oven-dry fine earth)		6.1
Calcium carbonate %		NIL
SOIL TEXTURE		SANDY LOAM

T = TRACE

THESE RESULTS PERTAIN ONLY TO THE SAMPLE(S) SUBMITTED AND TESTED



Making great sport happen

MITIGATION STUDY – FORMER VERNON INFANTS SCHOOL, POYNTON

J004908

KNIGHT, KAVANAGH & PAGE

Report Date: 13 March 2021

Visit Date: 12 February 2021



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Introduction

STRI have been asked to complete a site assessment by Knight, Kavanagh, and Page (KKP) to determine a mitigation strategy relating to the sports facilities located on the site of the former Vernon Infant School in Poynton. A proposed redevelopment of the site will mean part of the existing playing field will be absorbed into the development footprint and this report outlines a proposed strategy to mitigate any potential loss of sports surfaces.

Site Assessment

The site has an open aspect with little or no shade ingress seen due to the trees present on the site being confined to the outer boundaries. Both the Northern and Western boundaries are defined by residential houses, with the proposed development site being to the East and the existing Vernon Primary School to the South.

Drainage

Ground conditions on the day of the visit were generally soft following recent heavy rain and snowfall, however localised areas were firm. These were isolated to the higher spots within the site, namely the ridges. Within certain areas there was evidence of recent standing water where soil conditions were very soft due to saturation.

No drainage infrastructure or visual evidence thereof including manholes or inspection chambers were noted within the boundaries of the site during the visit. The closest visible manhole was located offsite in the road

Georges Close to the Northwest. Investigations of low lying furrows or areas that may hold drainage proved fruitless.

An area along the Northern boundary did show signs of recent surface water retention (Figure 5) and this may fall within the boundary of the proposed development. Measures should be considered to reduce runoff from the development onto the pitches that may further reduce the viability of the facility.

Levels

The site appears to have a natural slope running away from the development site towards the houses and from the Southeast to Northwest across the pitches (Figure 1).

Throughout the site there was evidence of ridge and furrow structures, especially on the pitches. To the Northern end along the housing fences there was evidence of recent standing water (Figure 5).

Given the continuous nature of the slope and the existence of ridge and furrows, installation of new drainage appears like it would be a straightforward process via utilising these structures. The lack of a formal outlet presents the opportunity to investigate Sustainable Drainage Solutions (SuDS) via on-site attenuation.

The wooded corner at the Northwest of the site appears to be the best existing location for attenuation infrastructure. Further investigation will be required to determine viability.

Despite the presence of the ridge and furrows and the level of use the pitches would receive, there appears to be no requirements for major earthworks to produce level surfaces. The existing surfaces provide

adequate performance that could be enhanced further through drainage installation.

Additional Constraints

The lack of an identifiable drainage outlet (manhole, inspection chamber etc.) on-site means that drainage discharge from the site will require additional investigation and discussion.

Soil and Agronomic Conditions

Soil investigations via core sampling showed the underlying soil structure to be open with a crumbly texture (Figure 2). Moisture content was very high, and the soil smeared when over worked and was easily moulded suggesting a high silt and clay (fines) content. Samples were taken for laboratory testing to determine textural analysis the results of which show the site to be dominated by a Sandy Clay loam (See Appendix...). These soils have limited natural drainage and therefore to mitigate against any potential loss of access or use due to inclement weather additional drainage infrastructures would be advised. in the form of a simple pipe network.

Utilisation of the sites natural slopes suggests with the installation of drainage, the playing surfaces could improve, and access and playability of the current facilities could be retained. To reinstate and improve the performance of all the pitches, installation of an extensive network of primary drainage is advised as part of the wider drainage discussion.

Primary pipe drainage will help remove water from site in large volumes, however, to improve the efficiency of the system a network of intercept drains is advised. It is recommended that a secondary drainage system of

either slit drains or sand bands are installed at appropriate intervals, to a minimum depth of 200 mm to connect with the permeable drainage aggregate in the primary drainage system. These will help intercept and remove water from the playing surfaces.

Reviews of historic aerial photographs suggest that no drainage infrastructure is present within the site. The proposed development area will have to be considered as part of the wider drainage discussion for the site in the event of surface runoff/discharge onto the playing surfaces.

Grass cover on the site was excellent overall with healthy perennial ryegrass (*Lolium* sp.) dominating. The turf was found to be 100-120mm long with no sign of recent maintenance, understandable given the ground conditions suggesting limited access by machinery. Broadleaf weeds were noted within the sward however were insufficient to cause any significant challenges or impact performance for the current level of usage.

Layout Discussion

Currently the site is hosting two mini football pitches, (1 x 9v9 and 1 x 11v11) in an East to West orientation. A single artificial cricket wicket lies between the pitches and was found to be in a severe state of disrepair (Figure 3) with significant moss ingress onto the surface.

The larger of the two pitches is located to the North of the site (11v11) with the smaller pitch to the South (9v9). The proposed development boundary will impact the larger pitch the most as it will fall along the existing goal line. The suggestion here is to adjust the existing location of the two pitches and centralise them within the remaining space, whilst accommodating a safety zone around each one. Illustration 1 below shows how this could be achieved using FA guidelines.



Illustration 1: Proposed adjusted layout by STRI.

Relocating both of the pitches 10-15 metres to the West would retain the 11v11 dimensions within the FA guidelines and allow for both pitches to be identical, therefore mitigating against any loss of facilities. With sufficient space remaining within the new site to accommodate a 9v9 pitch as required, this would provide playing surfaces of similar dimensions to the existing pitches, however some acceptable reductions maybe required as determined by the FA guidelines.

Consideration will have to be made for reinstatement of the cricket wicket area. Once remove this would need to integrate seamlessly into the surrounding area levels so as not to present any future risks through settlement and low areas developing which may impact drainage and future playability.

Mitigation

In the event that the pitches location is adjusted the new boundary of the proposed development may fall within range of potential ball strikes when games are being played. However, given the age groups using the facilities it is unlikely that protective netting or other structures will be required to prevent balls entering the new development along with the existing houses to the West. There are several mature deciduous trees providing a natural barrier for the Northern 11v11 pitch. Should a full sized pitch be installed in a North/South orientation then a reassessment of protective measures would be needed.

In the event that protective measures are required, these could be temporary and only used when the fields are in use thereby minimising any intrusion or being an eyesore for the new and existing residents.

No obvious constraints were noted or identified during the visit that would impact on this proposal.

Summary and Discussion

- The uniform grade of the site suggests that the proposals outlined previously in this report could be easily enforced as no constraints were identified.
- The natural slopes identified offer substance towards a simple drainage network infrastructure being installed to allow improved playing conditions to be developed. This would also allow greater facility accessibility and playability for the wider community at this age group.

-
- In the absence of an identifiable outlet for the drainage Sustainable Drainage Systems (SuDS) could be implemented to assist with the improvements.
 - Bio-attenuation or a soakaway are possibilities in the North West corner of the site however further investigation would be required to determine the viability of this option subject to approval by the client.
 - Upon removal of the artificial cricket wicket reinstatement of the turf in that area would need to integrate into the existing surrounding surface levels in order to minimise future issues once the new pitches are in place.

Photos



Figure 1: The site has natural slopes that fall from East to West (blue arrow) and from South to North (yellow arrow).



Figure 2: Soil structure was open and crumbly but very wet. Grass cover was excellent with a healthy uniform cover over the whole site.



Figure 3: Artificial cricket wicket shows significant damage to the carpet and is suffering with excessive moss ingress.



Figure 4: Both pitches could be relocated 10 metres closer to the trees to retain their dimensions. The location of the new goal line in yellow.



Figure 5: Surface debris suggests recent localised standing water, as does the turf discoloration by silt deposits.



Figure 6: Bio-attenuation may be possible within the Northwest corner subject to further investigation and design.

APPENDICES



Appendix 1: STRI proposed reconfigured layout showing 2 identical pitches for 9v9 as well as the possibility to accommodate a full sized adult pitch.

STRI

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SOIL PARTICLE SIZE ANALYSIS

CLIENT: KKP - POYNTON DATE: 26/02/21
VERNON INFANT SCHOOL RESULTS TO: GD
DESCRIPTION: TOPSOIL SAMPLE NO: A18815/6

CATEGORY	DIAMETER mm	%
Stones	>8	1
Coarse gravel	8-4	1
Fine gravel	4-2	T

Particle size distribution of mineral matter smaller than 2mm

Very coarse sand	2-1	1
Coarse sand	1.0-0.5	4
Medium sand	0.50-0.25	16
Fine sand	0.250-0.125	19
Very fine sand	0.125-0.050	18
Silt	0.050-0.002	21
Clay	<0.002	21
Loss on ignition (% of oven-dry fine earth)		7.7
Calcium carbonate %		NIL
SOIL TEXTURE		SANDY CLAY LOAM

T = TRACE

THESE RESULTS PERTAIN ONLY TO THE SAMPLE(S) SUBMITTED AND TESTED

Appendix 2: STRI soil test results