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PHASE 1 SPECIFICATION FOR PROPOSED PITCH IMPROVEMENT WORKS AT JUBILEE PARK, 357 READING ROAD, HENLEY-ON-THAMES, RG9 4HA.

19 February 2024 [Revision 1, 15 March 2024]

TGMS1315.2

STATUS: FOR ISSUE

REVISION RECORD					
Rev	**Date**	**Description**	**Prepared**	**Checked**	**Approved**
0	19/02/23	Document creation.	RE	MY	MY
1	15/03/24	Disposal of arisings now off-site.	RE	MY	MY

TABLE OF CONTENTS

Associated appended documents:

1. Drawing TGMS1315.2-1 Jubilee Park - Pitch Improvement Works - Phase 1
2. Excel Spreadsheet TGMS1315.2 Phase 1 Jubilee Park Work Schedules 19 02 24 REV1 15 03 24
3. TGMS1315.2 Henley Town Council Jubilee Park feasibility report 13 11 23 REV3 23 02 24 [abridged version]

Please note: Quantities have been provided in the Work Schedules referred to above however these are indicative only and must be verified by the Contractor. TGMS accepts no liability for these quantities, which must not be relied upon.

1. PART I: JCT 2016 MINOR WORKS BUILDING CONTRACT - PRELIMINARIES SUMMARY

1.1 PROJECT PARTICULARS

1.1.1 The Project

- Name: Jubilee Park.
- Nature: Pitch improvement works (Phase 1).
- Location: Jubilee Park, 357 Reading Road, Henley-on-Thames, RG9 4HA.
- Length of contract: 12 Weeks plus agronomic maintenance.

1.1.2 Employer (Client)

- Name: Henley Town Council.
- Address: Town Hall, Market Place, Henley on Thames, Oxon, RG9 2AQ.
- Contact: Cath Adams, Deputy Clerk/Planning and Project Manager.
- Telephone: 01491 576982 / 07801 594121
- Email: Cath.Adams@henleytowncouncil.gov.uk

1.1.3 Principal Contractor (CDM)

- Name: TBC
- Address:
- Contact:
- Telephone:
- E-mail:

1.1.4 Architect / Contract Administrator

- Name: Dr Richard Earl.
- Address: PSD / TGMS, 4 Doolittle Mill, Froghall Road, Ampthill, Bedfordshire, MK45 2ND.
- Telephone: 01525 307060 / 07736 476300
- Email: richard.earl@tgms.co.uk

1.1.5 CDM Administrator

- Name: N/A
- Address:
- Contact:
- Telephone:
- Email:

1.2 FORM OF CONTRACT

The form of contract will be the Joint Contracts Tribunal Ltd Minor Works Building Contract 2016 Edition incorporating all current published amendments.

The Clauses are scheduled within this document, but the Contractor must inspect the draft form for the full details of these Clauses and is to allow such sum/s as may deem necessary for carrying out the obligations and services required by the Contract. Payment terms are amended to 30 days.

All information contained within this document is subject to the conditions of the above stated contract.

1.3 THE RECITALS

1.3.1 First Recital

The work comprises pitch improvement works.

1.3.2 Second Recital

All construction information is found in the specification section (**REF: TGMS1315.2**) and on the drawings scheduled in Table 1 below.

1.3.3 Third Recital

The Contractor is to supply the Employer with a copy of the priced Work Schedules.

1.3.4 Forth Recital

Is the Employer a 'contractor' for the purposes of CIS? **No.**

1.3.5 Sixth Recital

The Contract is not supplemented by a Framework Agreement.

1.4 THE ARTICLES

Article 2: Contract Sum: **TBC**

Article 3: ~~Architect~~/Contract Administrator: **TGMS**.

Article 4 The Principal Designer for the purposes of the CDM Regulations is the ~~Architect~~/Contract Administrator

Article 5 The Principal Contractor for the purposes of the CDM Regulations is the Contractor.

Article 7: Is dispute resolution to be by arbitration? **Yes**

1.5 CONTRACT PARTICULARS

Fourth Recital & Schedule 2

Base Date: **10 days before tender return date**

Fifth Recital

CDM Regulations **The project is not notifiable.**

Section 2.2

Works commencement date **TBC.**

Date for completion: **TBC.**

Section 2.8

Liquidated damages: **£50 per day or part thereof.**

Section 2.10

Rectification period: **12 months from the date of practical completion.**

Section 4.3 Date of first interim payments

30 days from start date.

Section 4.3 Interim payments

95% of total work value up to practical completion.

Percentage of the total amount to be paid to the contractor on or after practical completion: **97.5%.**

Section 4.8.1 Final certificate and final payment

Supply of documentation for computation of amount to be finally certified: **3 months.**

Section 4.3 and 4.8 Fluctuations provision

Schedule 2 (Fluctuations Option): **Does not apply.**

Section 5.3

Contractor's Public Liability insurance: injury to persons or property – the required level of cover is not less than **£1 million.**

Section 5.4A, 5.4B and 5.4C Insurance of the Works.

Insurance of the works: **Option A Applies**.

Percentage to cover professional fees: **15%**

Section 7.2 Settlement of Disputes – Adjudication

The Adjudicator is: **Chartered Institute of Arbitrators**

Nominating body: **Chartered Institute of Arbitrators**

Appointor of Arbitrator (and of any replacement**): President or a Vice-President of the Chartered Institute of Arbitrators.**

Attestation

Method of execution: **By Deed.**

1.6 FORM OF TENDER

PROJECT TITLE: Phase 1 pitch improvement works Jubilee Park, 357 Reading Road, Henley-on-Thames, RG9 4HA.

We ..... (Tenderer's name to be entered) hereby tender and undertake to perform the whole of the works/services required in and associated with the Project for **Henley Town Council** according to the Specification, Work Schedules, Preliminaries and Drawings examined by us for the firm price sum of:

.....(pounds)

.....(pence)

(£ : p) excluding VAT.

Further we are prepared, when called upon to do so, to enter into and sign a contract, the full terms of which we have read, for the due and proper completion of the works/services.

We understand that we are tendering at our own expense and that the Client is not bound to accept the lowest or any tender and that the client reserves the right to award the contract phase by phase.

We declare that we are not party to any scheme or agreement under which:

- we inform any other person the amount of our tender; and/or
- we have fixed the amount of any tender in accordance with a price fixing arrangement.

We accept that the Client is entitled to cancel the contract and to recover from us the amount of any loss resulting from such cancellation if it is discovered that there has been any corrupt or fraudulent act or omission by us which in any way induced the Client to enter into the contract.

We declare that all goods materials and workmanship will meet the appropriate British Standard Specification or British Standard Code of Practice issued by the British Standards Institution or equivalent European standard current at the date of the contract.

We undertake in respect of all persons employed by us or with whom we sub-contract to comply with the Disability Discrimination Act 1995 and the Commission for Racial Equality's Code of Practice issued under the Race Relations Act 1976 aimed at eliminating discrimination and promoting equality of opportunity.

We undertake not to transfer, assign, or sub-let any portion of the contract nor create any lien or charge on premises, goods or equipment connected with or forming part of the contract, without the written consent of the Client or its duly authorised officer.

We agree that if, before acceptance of this tender, an error in computation of the tender is detected in the priced document submitted by us we will be given details of the error and the opportunity of confirming the total tender sum or withdrawing the tender.

We agree that the insertion by us of any qualifications to this tender or any unauthorised alterations to any of the tender documents will not affect the original text but will cause the tender to be liable to rejection.

We agree that this tender will remain open for acceptance by the Client and will not be withdrawn by us for a period of 90 days from the last date fixed for the receipt of tenders or any notified extension thereof.

We certify that this is a bona fide tender.

Tenderer's Name

.....

Address

.....

.....

.....

Telephone

.....

Facsimile

.....

Signature*

.....

Name

.....

Date

.....

Witness

.....

Name

.....

Date

.....

* Where the Tenderer is an incorporated association the Company Secretary or a duly authorised Director should sign. In the case of a partnership a Partner should sign. In the case of an individual the Proprietor should sign.

2. PART II: DESIGN SPECIFICATION

2.1 INTRODUCTION AND SITE INFORMATION

2.1.1 Introduction

TGMS has been commissioned to provide specialist technical support for the proposed pitch improvement works at Jubilee Park, 357 Reading Road, Henley-on-Thames, RG9 4HA.

The proposed works are to be split into the following two phases, with this specification covering Phase 1:

Phase 1 [May to August 2024]

1. Level a small triangular area near the Reading Road entrance and install a French drain.
2. Trim back as far as is practically possible hedge and tree lines abutting pitch areas (to be conducted by others ahead of the works).
3. Increase the size of the Youth U15/U16 11v11 pitch immediately adjacent to the hockey pitch to 90 m x 50 m plus 3 m safety margin (no additional works anticipated).
4. Keeping within the existing site boundary (i.e. not going into the triangular powerline plot to the south-east), remove a bund and reinstate a hardcore track to extend the pitch area in the south-east of the site to accommodate two Mini-Soccer U9/U10 7v7 54.90 m x 36.60 m pitches plus 3 m safety margins (running approximately north-south). As an alternative, this area is to accommodate a single U15/U16 11v11 82.3 m x 45.75 m pitch plus 3 m safety margin (running approximately east-west).
5. Enhanced agronomic maintenance.

Phase 2 [Ideally May to August 2025, but dependent on the 3G construction programme].

1. Remove the fence between the south-eastern area and the triangular powerline plot.
2. Use the SANDY LOAM soil arisings from the 3G project to cover the landfill area and grade this into the existing pitches in the south-east to create a single uniform plateau to accommodate a Mini-Soccer U9/U10 7v7 54.90 m x 36.60 m pitch plus 3 m safety margin and a Youth U11/U12 9v9 70 m x 40 m pitch plus 3 m safety margin (running approximately north-south), plus two blocks of three 10 m x 10 m training grids. As an alternative, the pitch area is to accommodate a single U15/U16 11v11 82.3 m x 45.75 m pitch plus 3 m safety margin (running approximately east-west).

2.1.2 Site information

The site is an established sports ground which is home to AFC Henley Football Club and comprises a block of natural turf pitches bounded by a Tesco superstore to the north-west, a railway line and agricultural land to the north-east, residential properties to the south-east, and Reading Road (A4155) to the south-west.

2.1.3 Site location

The site address is:

Jubilee Park
355 Reading Road
Henley-on-Thames
RG9 4HA

Grid reference (centre of the field).

OS X (Eastings)	476923
OS Y (Northings)	181343
Nearest Post Code	RG9 4HF

The approximate location of the site and its layout are indicated in Figures 1 and 2 respectively.

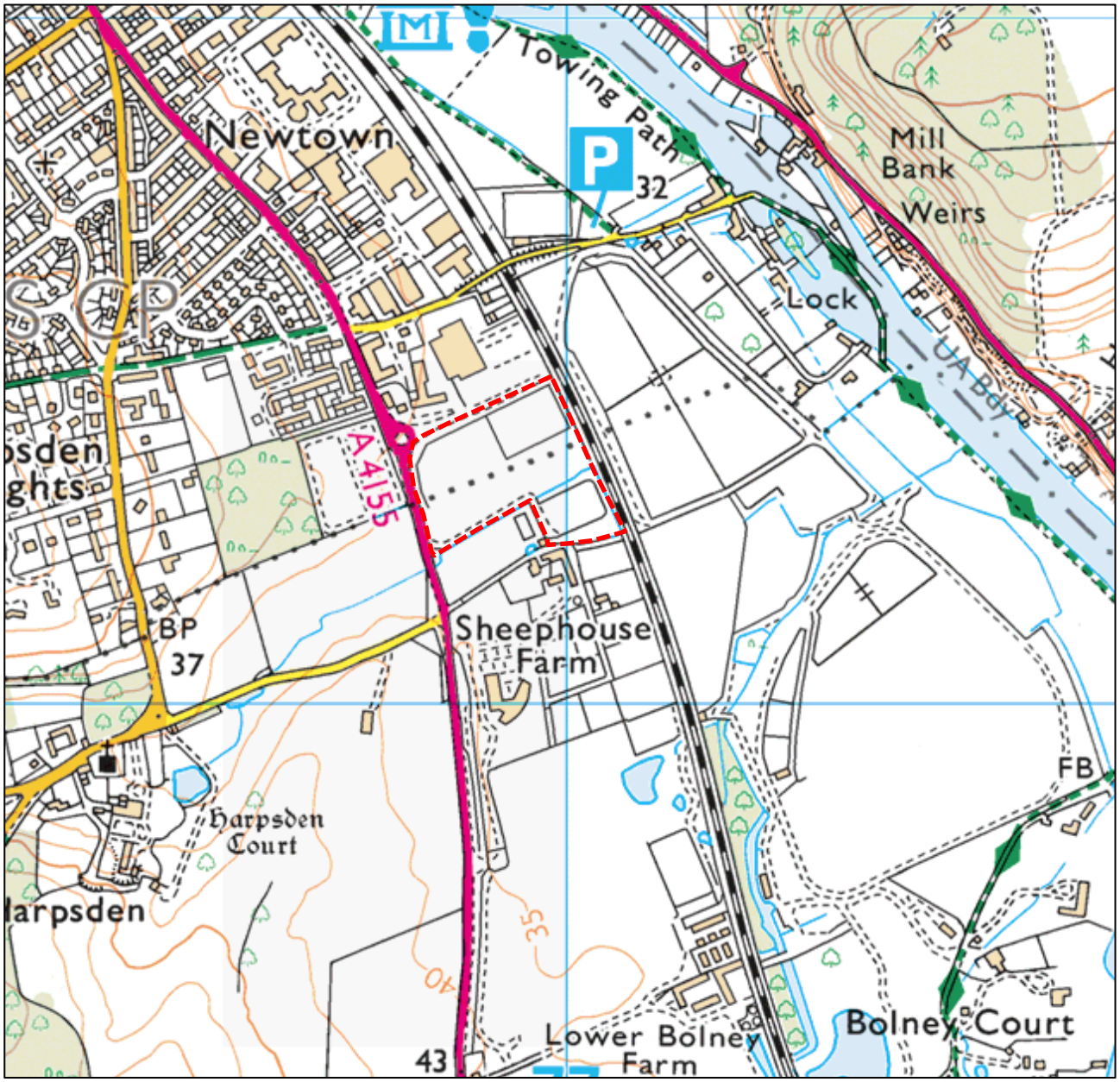

Figure 1. Site location (red hatched line). Location indicative only and not to scale.

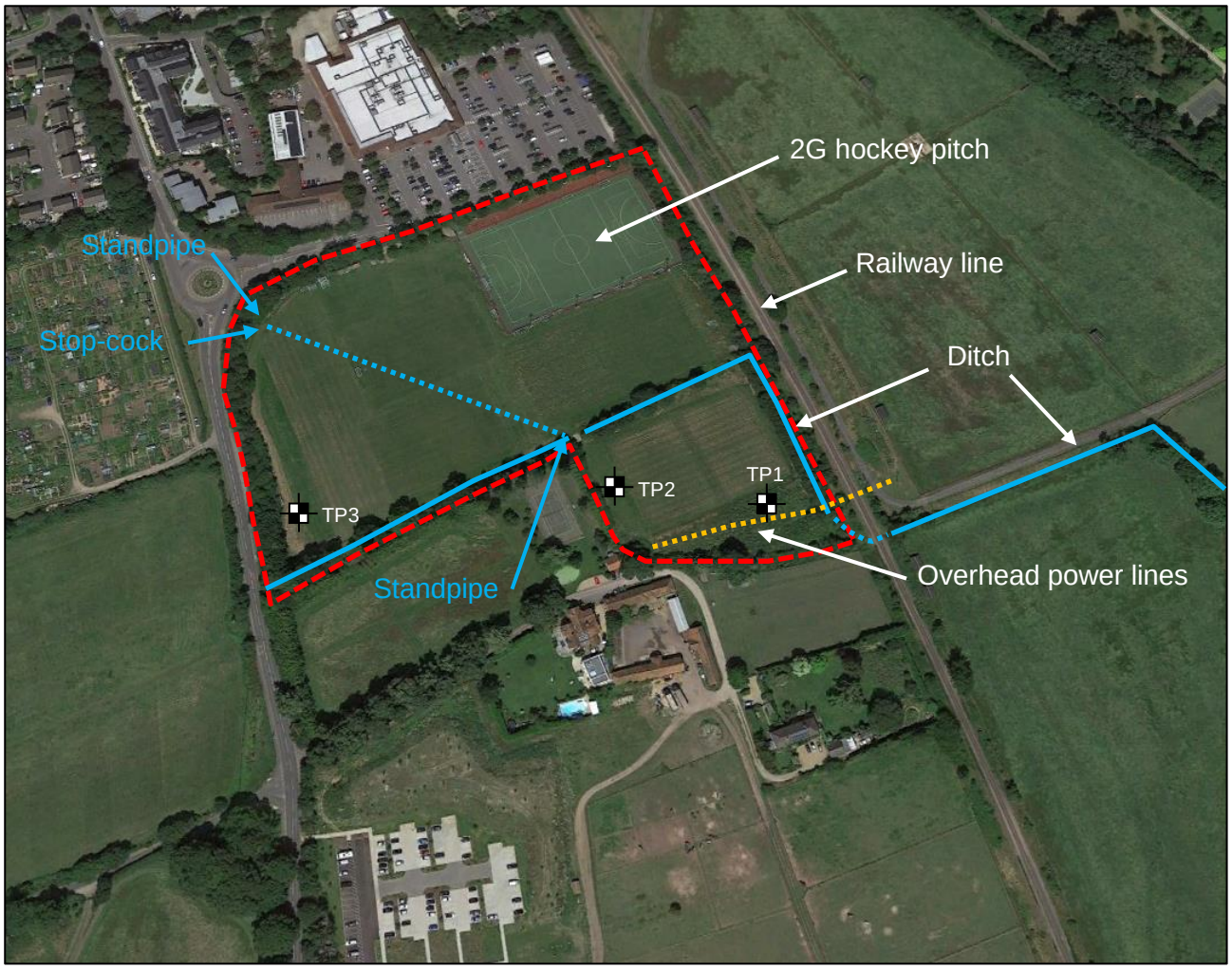

Figure 2. Site overview. The red hatched line demarcates the extent of the site (indicative and not to scale). TP1 to TP3 mark the approximate locations of the test pits.
(Aerial photograph courtesy of Google Earth Pro).

It is proposed to construct a new 3G pitch towards the centre of the site, along with changing rooms and a car park towards the north-western boundary Figure 3.

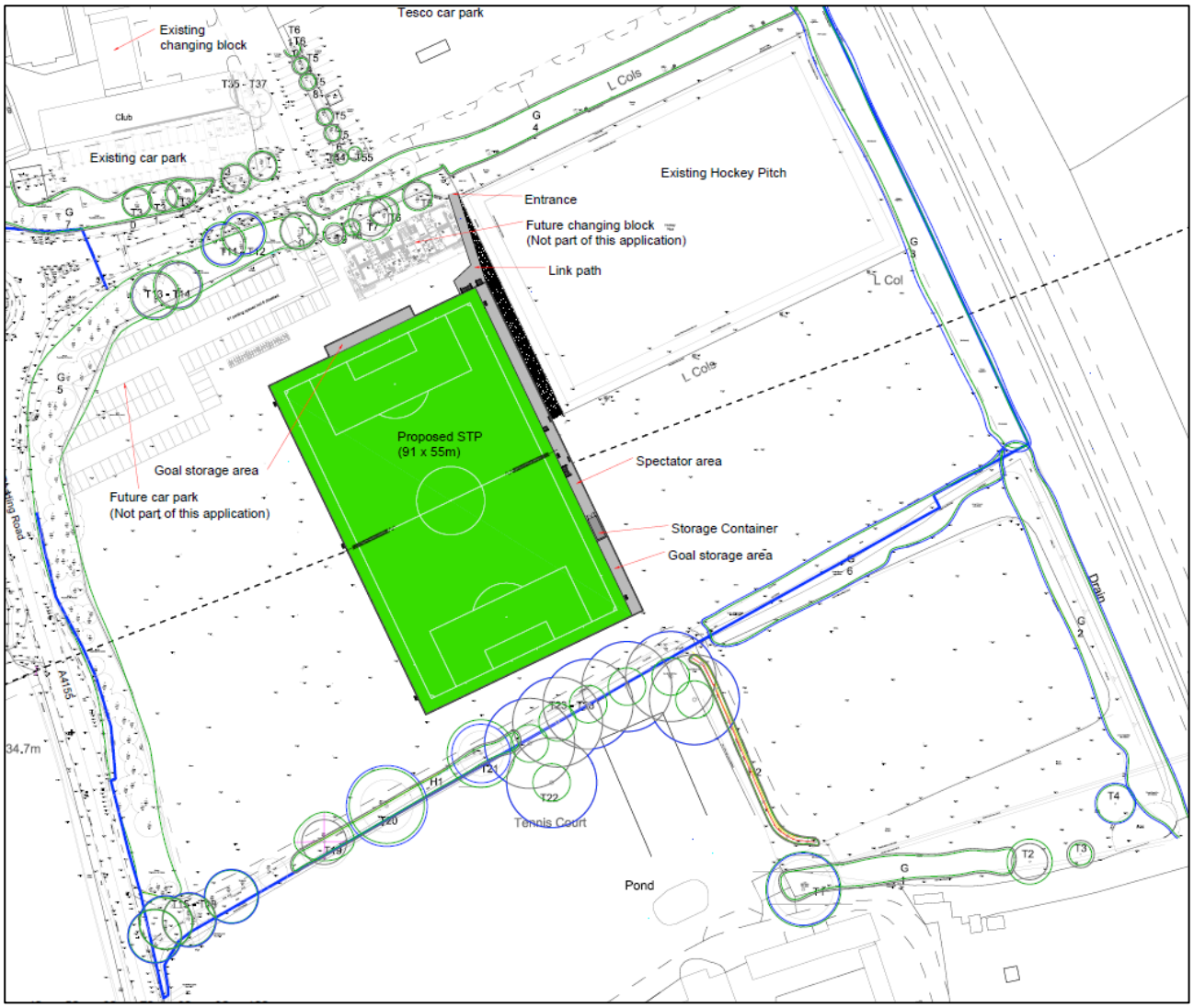

Figure 3. Proposed site layout.
(Excerpt from drawing MCA-MUK2942-07 courtesy of McArdle Sport Tec).

2.1.4 Tender Stage Site Visits:

Arrangements to visit the site can be made by contacting:

Contact Name: Cath Adams
Organisation: Henley Town Council
Mobile: 01491 576982 / 07801 594121
Email: Cath.Adams@henleytowncouncil.gov.uk

2.2 GENERAL SCOPE

2.2.1 Work outline

The Phase 1 work proposed in this specification shall be as follows:

PART A TRIANGULAR AREA - NEAR READING ROAD

- Setting out.
- Fraise mowing (to remove thatch layer).
- Initial cultivations.
- Topsoil strip and stockpile.
- Cut & fill remodelling earthworks to increase the “flat” area.
- Return of site-won topsoil over “flat” area and batter slope.
- Cultivation and grading.
- Stone separation and removal (off-site).
- Surface re-grading.
- Installation of a French drain.
- Disposal of excavation spoil (off-site).
- Sand topdressing (10 mm).
- Fertilisation and seeding.
- Reinstatement of damage.
- As-built survey, O&M Manual and H&S File.

PART B BUND AND TRACK REMOVAL - SOUTH-EASTERN PITCH AREA

- Setting out.
- Removal of vegetation from the bund.
- Excavation and removal of the hardcore track.
- Disposal of track arisings in the “pond” area.
- Excavation and removal of the bund to temporary stockpile.
- Cut & fill remodelling earthworks to increase the pitch area.
- Return of bund topsoil.
- Importation of additional topsoil.
- Stone separation and removal (off-site).
- Surface re-grading.
- Sand topdressing (10 mm).
- Fertilisation and seeding.

PART C ENHANCED AGRONOMIC MAINTENANCE – ALL PITCH AREAS

- Deep scarification.
- Selective herbicide.
- Decompaction.
- Sand topdressing.
- Fertilising.
- Overseeding.

Please refer to the Schedule of Drawings (Table 1) for layout construction works.

Table 1 Schedule of Drawings (please note drawings are subject to revision prior to and during construction – please consult latest issue of Drawing Register).

Drawing No.	Title
TGMS1315.2-1	Tgms1315.2-1 Jubilee Park - Pitch Improvement Works - Phase 1.

N.B. Earthworks should only be carried out under suitable weather and ground conditions (i.e. soil in a dry and friable state) to avoid structural damage.

2.2.2 General Notes

- It is recommended that a site visit is carried out when pricing this work.
- All drainage and earthworks to be carried out using equipment fully equipped with laser grade control.
- All ancillary equipment to be fitted with low ground pressure tyres.
- The position and layout of the drainage system, as indicated on the attached drawing, may be amended to take account of local factors encountered on site.
- Diesel or any other deleterious matter shall be prevented from contaminating the site etc. Any such matter allowed to pollute the site shall be removed together with all affected soil and/or plant material and carted to tip at the Contractor's own expense. Any material necessary to make good the soil formation or plant material will be provided by the Contractor and will be of the type and quality of the original material prior to damage, and must be approved by the Contract Administrator.
- It is the Contractor's responsibility to conduct searches to determine the presence of any services and utilities running through, over and/or around the working area. Contractors should conduct site investigations to determine the location of any service or utilities as per good health and safety procedures. All this should be before the commencement of any work on site.
- Prior to start on site, the Contractor shall prepare a photographic Schedule of Condition and agree same with the Contract Administrator.
- No work shall commence until all statutory requirements have been complied with including those related to the Town and Country Planning Act and the Construction Design and Management Regulations.
- The works listed below are not necessarily to be conducted in chronological order. It is the responsibility of the contractor to implement all items specified to the desired standards irrespective of the order that they are presented in this document.

2.3 DETAILED SPECIFICATION

2.3.1 PART A: TRIANGULAR AREA - NEAR READING ROAD

PART A: EARTHWORKS, DRAINAGE AND ESTABLISHMENT

Item Operation

P1 The Contractor shall allow for all necessary fencing and signage in order to secure the working and site compound areas and haulage routes in order to protect members of the public from the works. It is anticipated that Heras fencing shall be used to demarcate the working areas and site compound. Footpath crossing points shall be marked appropriately. The location for deep excavations (e.g. inspection chamber construction) shall be protected with Heras (or similar) fencing.

P2 The Contractor shall allow for compliance with all relevant Health and Safety regulations including the Construction Design and Management regulations (CDM) 2015. This shall include performing the role of Principal Contractor.

P3 The Contractor shall allow for the provision of all welfare facilities for staff.

P4 The Contractor shall allow for the mobilisation and demobilisation of all necessary plant to complete the project.

P5 The Contractor shall allow for compliance with all Conditions of Contract.

P6 The Contractor shall locate and mark the path of the electrical cables in and around the project area. The Contractor will be responsible for making good any damage caused by construction.

IMPORTANT, FOR INFORMATION ONLY: Existing levels and Layout taken from drawing H28520 Site Survey by Peter J.H. Roberts & Associates.

A1 Setting out

1.1 The Contractor shall set out the working area with due regard to Drawing **TGMS1315.2-1**.

A2 Site clearance

2.1 The working area shall be fraise-mowed to remove the upper 25 mm organic matter-rich layer. The arisings shall be disposed of off-site.

A3 Topsoil cultivation and removal

3.1 When ground conditions are suitable (topsoil in a dry and friable state), the working area shall be rotary cultivated in order to incorporate any remaining organic matter residue and to provide a suitable tilth for stripping.

3.2 Under suitable ground conditions (i.e. topsoil in a dry and friable state), the topsoil shall be stripped from the working area and removed to a stockpile on-site for re-use. Only true topsoil shall be stripped which shall not be contaminated with subsoil. This is assumed to be in the region of 100 mm however topsoil depths are variable.

3.3 The topsoil shall be piled at a height no greater than 2.5 m and carefully consolidated to ensure minimal infiltration of rainwater.

A4 Cut and Fill earthworks

4.1 All earthmoving equipment shall be fitted with laser grade control to ensure that the

specified formation levels of are achieved.

4.2 Cut and fill and re-grading operations shall be carried out when the existing subsoil material is below its plastic limit. The subsoil/fill material shall be compacted into place in layers of not more than 150 mm thickness to a density similar to that of the undisturbed subsoil.

4.3 The formation surface and surrounding areas shall be graded to even, flowing contours such that there are no deviations >30 mm beneath a 2 m straight edge.

4.4 The completed formation surface (including a steepened batter slope) shall form a smooth transition with adjacent areas of the site. There shall be no slopes greater than 1:2.

4.5 The resulting cuttings and embankments shall be trimmed to the appropriate gradient with even contours.

4.6 The subsoil shall be loosened (i.e. subsoil cultivation using a winged cultivator, shakaerator or similar approved machine) in two directions in order to alleviate compaction and remove any smear that may have resulted from the earthworks.

4.7 Following loosening, a stone separation operation shall be undertaken to remove all stone >50 mm in any dimension from at least the upper 50 mm depth of subsoil plateau. This shall be undertaken with a modified potato harvester, beach cleaner or other suitable approved equipment and may require multiple passes to achieve the specification. The stones shall be disposed of off-site.

4.8 Following loosening and the stone separation, the subsoil shall be lightly tracked using low ground pressure tracks to consolidate but not overly compact the formation surface.

4.9 Surface level uniformity of the subsoil formation surface shall achieve a tolerance of no more than a 30 mm deviation beneath a 2 m straight edge.

A5 Topsoil return

5.1 Following final grading and trimming of the subsoil, the stockpiled topsoil shall be spread over the working area (including the steepened batter slope) with minimal trafficking.

5.2 The topsoil shall be graded and then lightly consolidated to achieve a dry bulk density of approximately 1.2 – 1.3 Mg m^{-3}. Consolidated topsoil depth shall be ~100 mm.

A6 Stone removal

6.1 A stone separation operation shall be undertaken to remove as many stones >20 mm in any dimension as practical from the upper 100 mm depth of topsoil by stone picking or in-situ stone separation techniques. This shall be undertaken with a modified potato harvester, beech cleaner or other suitable approved equipment and may require multiple passes. The stones shall be disposed of off-site. The contractor should make themselves aware of the stone content prior to the works commencing.

6.2 Following stone removal, the surface shall be cultivated and graded to restore surface levels prior to drainage installation.

A7 Drainage installation

7.1 Trench excavation

7.1.1 Please refer to the accompanying Drawing **TGMS1315.2-1** for the layout of the drainage scheme. Drain cross sections are also presented.

7.1.2 The trenches shall be clean cut, with a level base, to the dimensions given in **Item 7.2**.

7.1.3 All trenches shall be excavated with machinery fitted with laser grade control.

7.1.4 Excavation shall begin at the outfall (provided by others), the profile to be established at the outfall, and carried upstream with adjustments for grade and depth as work proceeds.

7.1.5 Any under drains encountered are to be marked so they can be renovated and connected into the new system if considered viable.

7.1.6 All spoil from this operation shall be disposed of off-site.

7.2 Trench dimensions

7.2.1 French drains (100 mm ∅ plastic perforated pipe)

- 0.500 m below the finished surface.
- Grade at the fall of the finished surface, but no less than 0.5% (1 in 200).
- Not more than 0.150 m wide below 0.100 m depth, and 0.400 m wide for the first 100 m depth.

7.3 Gravel backfill for the French drains

7.3.1 The material shall be clean, hard, gravel or chippings (e.g. quartz or quartzite) with dimensions not greater than 6 mm and not less than 2 mm. The calcium carbonate content shall not exceed 5%.

7.3.2 The material shall be free of fines and comprise of particles that are angular, sub-angular or sub-rounded in shape.

7.3.3 The calcium carbonate content shall not exceed 5%.

7.3.4 For French drains, the gravel backfill shall be placed immediately and carefully over the pipe to within 200 mm of the finished surface. Any damage to the pipe shall be made good at the Contractor's expense.

7.4 Rootzone backfill material for the French drains. The rootzone material shall be of the following specification:

7.4.1 Comprise 70% sand compliant with the following grading:

- V. coarse sand (2.0 – 1.0 mm) <5%
- Coarse sand (1.0 – 0.5 mm) 10 – 20%
- Medium sand (0.5 – 0.25 mm) 55 – 70%
- Fine sand (0.25 – 0.15 mm) 10 – 20%
- V. fine sand (0.15 – 0.05 mm) <5%7

7.4.2 The sand shall be non-saline (electrical conductivity < 0.75 dS m^{-1}), and contain less than 0.5% (w/w) $CaCO_3$.

7.4.3 The rootzone shall also:

- Comprise 30% sandy soil.
- Contain a minimum organic matter content of 2% (LOI).
- Incorporate a slow release fertiliser.
- Have a capillary rise of no more than 250 mm at a dry bulk density of 1.65 Mg m^{-3}.
- Have at least 15% air-filled porosity in the top 50 mm of the capillary rise.
- Have a hydraulic conductivity of at least 100 mm h^{-1} at 30 cm tension and a dry bulk density of 1.60 g cm^{-3}.

7.4.4 The Contractor shall supply an independent laboratory report on the proposed rootzone to include a particle size distribution (with appropriate sieve sizes to determine 7.4.1, calcium carbonate content, pH, organic matter content, saturated hydraulic conductivity, air filled porosity and capillary rise at the stated dry bulk density.

7.4.5 The rootzone shall be placed on the gravel and consolidated flush with the

surface.

7.4.6 Provision shall be made to top up the drain run to take account of natural settlement of material within the trench such that a level playing surface is maintained. Any settlement greater than 20 mm under a 2 m straight edge during the first 12-months post installation shall be made good at the Contractor's expense. This includes settlement as a result of natural soil shrinkage due to dry weather.

7.5 Pipe laying

7.5.1 Pipes shall be laid to the correct depth stipulated above and to an even grade.

7.5.2 Drainage depth is to be measured from nominal ground level.

7.5.3 The pipe for French drains shall be corrugated perforated plastic corresponding to EN1401-1:2019. There shall be no damage to the pipe. Upper ends of drain runs shall be plugged to prevent ingress of soil or animals.

7.6 Headwall

7.6.1 Supply and install a proprietary headwall.

7.7 Land drainage arisings

7.7.1 All arisings from the land drainage operations are to be disposed of off-site.

A8 Sand Topdressing

8.1 Apply 10 mm of sand topdressing of the following specification:

- V. coarse sand (2.0 – 1.0 mm) <5%
- Coarse sand (1.0 – 0.5 mm) 10 – 20%
- Medium sand (0.5 – 0.25 mm) 55 – 70%
- Fine sand (0.25 – 0.15 mm) 10 – 20%
- V. fine sand (0.15 – 0.05 mm) <5%
- Saturated hydraulic conductivity >300 mm h^{-1}.
- pH 5.5 – 7.0.
- Contain less than 0.5% (w/w) $CaCO_3$.
- Compliant with Tier 1 Classification.

A9 Fertilisation

9.1 The cultivated area shall be fertilised with an appropriate pre-germination fertiliser of 15:10:25 (containing at least 50% controlled release N) formulation at a rate of 70 g m^{-2} at least 3 days prior to seeding. This should be lightly worked into the seedbed during final cultivations.

A10 Seeding

10.1 A suitable 100% Perennial Ryegrass seed mix shall be drilled @ **50 g m^{-2}** in at least three directions. The seed mix shall be made up from at least three varieties each with a minimum rating for the mean of live ground cover and visual merit of 7.0 as listed in the latest BSPB Turf grass Seed Book, Table S1: Perennial Ryegrass, Sports Uses.

10.2 Prior to seeding, mix the seed with a mycorrhizal coating at a rate of 3 kg ha^{-1}.

10.3 The seed shall have a certified germination of not less than 80% and a certified purity of not less than 90%. Total weed seed content shall not be more than 0.5% and the total content of other crop seeds shall not exceed 1%.

10.4 Following seeding, the surface shall be lightly rolled with a set of Cambridge rolls (or similar) to encourage good soil-seed contact.

A11 Reinstatement of damage

11.1 All damage caused by plant and vehicle movement to the playing fields and identified / agreed with the Contract Administrator shall be made good by:

11.1.1 Cultivating the affected area to below the depth of damage using a rotary cultivator or similar equipment. Care must be taken with the timing of this operation to avoid smearing on the base of the cultivation. Any weeds, rubbish and stones over 20 mm gauge must be removed and disposed of off-site as directed by the Contract Administrator.

11.1.2 A seedbed should then be prepared using a power harrow.

11.1.3 Pre-seeding fertiliser (10:15:10) to be applied @ 70 g m^{-2} over the reinstated area a minimum of 5 days prior to seeding.

11.1.4 A suitable Perennial Ryegrass dominated seed mix shall be drilled at a rate of 35 g m^{-2} in two directions. The seed mix shall be made up from at least three varieties each with a minimum rating for the mean of live ground cover and visual merit of 7.0 as listed in the latest BSPB Turf grass Seed Book, Table S1: Perennial Ryegrass, Sports Uses.

11.1.5 The seed shall have a certified germination of not less than 80% and a certified purity of not less than 90%. Total weed seed content shall not be more than 0.5% and the total content of other crop seeds shall not exceed 1%.

11.1.6 The finished levels for seeding shall, unless otherwise indicated on the drawings, be perfect to the surrounding contours and 25 mm above any adjacent hard surfaces.

A12 As-built survey, O&M Manual and H&S File

12.1 An as-built/laid survey of the construction shall be carried out and provided to the Client in both pdf and dwg formats. The survey should indicate the location and type of all materials used including the drainage and the relevant diameters and depths of the installation.

12.2 Information on materials and methods used, and the operation and maintenance of all systems. This should be provided to the Contract Administrator for inclusion in the O&M manual and H&S files as per the requirements of CDM 2015.

2.3.2 PART B: BUND AND TRACK REMOVAL - SOUTH-EASTERN PITCH AREA

PART B: EARTHWORKS AND ESTABLISHMENT

Item Operation

P1 The Contractor shall allow for all necessary fencing and signage in order to secure the working and site compound areas and haulage routes in order to protect members of the public from the works. It is anticipated that Heras fencing shall be used to demarcate the working areas and site compound. Footpath crossing points shall be marked appropriately. The location for deep excavations (e.g. inspection chamber construction) shall be protected with Heras (or similar) fencing.

P2 The Contractor shall allow for compliance with all relevant Health and Safety regulations including the Construction Design and Management regulations (CDM) 2015. This shall include performing the role of Principal Contractor.

P3 The Contractor shall allow for the provision of all welfare facilities for staff.

P4 The Contractor shall allow for the mobilisation and demobilisation of all necessary plant to complete the project.

P5 The Contractor shall allow for compliance with all Conditions of Contract.

P6 The Contractor shall locate and mark the path of the electrical cables in and around the project area. The Contractor will be responsible for making good any damage caused by construction.

IMPORTANT, FOR INFORMATION ONLY: Existing levels and Layout taken from drawing H28520 Site Survey by Peter J.H. Roberts & Associates.

B1 Setting out

1.1 The Contractor shall set out the working area with due regard to Drawing **TGMS1315.2-1**.

B2 Site clearance

2.1 Spray off the existing vegetation on the bund with an approved, systemic, non-residual total herbicide in accordance with the manufacturer's instructions and an appropriate COSHH assessment by qualified personnel. A period of 14 days shall elapse between spraying and undertaking clearance works to allow sufficient time for the vegetation to senesce. A second application of total herbicide may be required just prior to cultivation to ensure complete vegetation control.

2.2 All remaining vegetation on the site shall be flail-mowed and all clippings/vegetation removed to disposal off-site.

B3 Track removal

3.1 When ground conditions are suitable (surrounding topsoil in a dry and friable state), the hardcore track shall be excavated, and the arisings disposed of off-site.

B4 Bund removal

4.1 Under suitable ground conditions (i.e. topsoil in a dry and friable state), the bund shall be excavated and removed to a temporary stockpile on-site for re-use. Only true topsoil shall be retained which shall not be contaminated with subsoil.

4.2 The topsoil shall be piled at a height no greater than 2.5 m and carefully consolidated to

ensure minimal infiltration of rainwater.

B5 Cut and Fill earthworks

5.1 All earthmoving equipment shall be fitted with laser grade control to ensure that the specified formation levels of are achieved.

5.2 Cut and fill and re-grading operations shall be carried out when the existing subsoil material is below its plastic limit. The subsoil/fill material shall be compacted into place in layers of not more than 150 mm thickness to a density similar to that of the undisturbed subsoil.

5.3 The formation surface and surrounding areas shall be graded to even, flowing contours such that there are no deviations >30 mm beneath a 2 m straight edge.

5.4 The completed formation surface shall form a smooth transition with adjacent areas of the site and boundary. There shall be no slopes greater than 1:3.

5.5 Any resulting cuttings and embankments shall be trimmed to the appropriate gradient with even contours.

5.6 The subsoil shall be loosened (i.e. subsoil cultivation using a winged cultivator, shakaerator or similar approved machine) in two directions in order to alleviate compaction and remove any smear that may have resulted from the earthworks.

5.7 Following loosening, a stone separation operation shall be undertaken to remove all stone >50 mm in any dimension from at least the upper 50 mm depth of subsoil plateau. This shall be undertaken with a modified potato harvester, beach cleaner or other suitable approved equipment and may require multiple passes to achieve the specification. The stones shall be disposed of off-site in the “pylon” area.

5.8 Following loosening and the stone separation, the subsoil shall be lightly tracked using low ground pressure tracks to consolidate but not overly compact the formation surface.

5.9 Surface level uniformity of the subsoil formation surface shall achieve a tolerance of no more than a 30 mm deviation beneath a 2 m straight edge.

B6 Topsoil return

6.1 Following final grading and trimming of the subsoil, the stockpiled topsoil shall be spread over the working area.

6.2 The topsoil shall be graded and then lightly consolidated to achieve a dry bulk density of approximately 1.2 – 1.3 Mg m^{-3}. Consolidated topsoil depth shall be ~100 mm.

B7 Topsoil importation

7.1 It is anticipated that the bund comprises indigenous topsoil that was stripped during construction of the hardcore track. The nature, quantity and suitability of the bund material will only become apparent during the works and so there may be a requirement to import, place and grade additional topsoil.

7.2 Should additional topsoil importation be required, it shall meet the following criteria:

- Sandy Loam texture suitable for sports use and comprising particle sizes in the following range: 70-85% Sand, 0-10% Clay and 0-20% Silt.

- The chosen topsoil shall be free of stones >15 mm diameter, shall contain no glass or other physical contaminants and shall have a minimum saturated hydraulic conductivity of not less than 15 mm h^{-1} when compact (at a test dry bulk density of not less than 1.50 g cm^{-3}).
- The topsoil shall carry current (within the previous 6 weeks prior to being spread) valid analysis certificates that prove that it conforms to the above specification. In addition, the topsoil must comply with the British Standard for Topsoil (BS3882:2015), be suitable for sports pitch use and be free of all physical, biological and chemical contaminants. All certificates shall be provided by the Contractor for approval by the Contract Administrator or their representative prior to work commencing. All analysis should be undertaken by a laboratory that complies with Good Laboratory Practice and/or is UKAS / ISO 17025:2017 Accredited for topsoil analysis.

B8 Stone removal

8.1 A stone separation operation shall be undertaken to remove as many stones >20 mm in any dimension as practical from the upper 100 mm depth of topsoil by stone picking or in-situ stone separation techniques. This shall be undertaken with a modified potato harvester, beech cleaner or other suitable approved equipment and may require multiple passes. The stones shall be disposed of off-site. The contractor should make themselves aware of the stone content prior to the works commencing.

8.2 Following stone removal, the surface shall be cultivated and graded to restore surface levels prior to drainage installation.

B9 Sand Topdressing

9.1 Apply 10 mm of sand topdressing of the following specification:

- V. coarse sand (2.0 – 1.0 mm) <5%
- Coarse sand (1.0 – 0.5 mm) 10 – 20%
- Medium sand (0.5 – 0.25 mm) 55 – 70%
- Fine sand (0.25 – 0.15 mm) 10 – 20%
- V. fine sand (0.15 – 0.05 mm) <5%
- Saturated hydraulic conductivity >300 mm h^{-1}.
- pH 5.5 – 7.0.
- Contain less than 0.5% (w/w) $CaCO_3$.
- Compliant with Tier 1 Classification.

B10 Fertilisation

10.1 The cultivated area shall be fertilised with an appropriate pre-germination fertiliser of 15:10:25 (containing at least 50% controlled release N) formulation at a rate of 70 g m^{-2} at least 3 days prior to seeding. This should be lightly worked into the seedbed during final cultivations.

B11 Seeding

11.1 A suitable 100% Perennial Ryegrass seed mix shall be drilled @ **50 g m^{-2}** in at least three directions. The seed mix shall be made up from at least three varieties each with a minimum rating for the mean of live ground cover and visual merit of 7.0 as listed in the latest BSPB Turf grass Seed Book, Table S1: Perennial Ryegrass, Sports Uses.

11.2 Prior to seeding, mix the seed with a mycorrhizal coating at a rate of 3 kg ha^{-1}.

11.3 The seed shall have a certified germination of not less than 80% and a certified purity of not less than 90%. Total weed seed content shall not be more than 0.5% and the total content of other crop seeds shall not exceed 1%.

B12 Reinstatement of damage

12.1 All damage caused by plant and vehicle movement to the playing fields and identified / agreed with the Contract Administrator shall be made good by:

12.1.1 Cultivating the affected area to below the depth of damage using a rotary cultivator or similar equipment. Care must be taken with the timing of this operation to avoid smearing on the base of the cultivation. Any weeds, rubbish and stones over 20 mm gauge must be removed and disposed of off-site as directed by the Contract Administrator.

12.1.2 A seedbed should then be prepared using a power harrow.

12.1.3 Pre-seeding fertiliser (10:15:10) to be applied @ 70 g m^{-2} over the reinstated area a minimum of 5 days prior to seeding.

12.1.4 A suitable Perennial Ryegrass dominated seed mix shall be drilled at a rate of 35 g m^{-2} in two directions. The seed mix shall be made up from at least three varieties each with a minimum rating for the mean of live ground cover and visual merit of 7.0 as listed in the latest BSPB Turf grass Seed Book, Table S1: Perennial Ryegrass, Sports Uses.

12.1.5 The seed shall have a certified germination of not less than 80% and a certified purity of not less than 90%. Total weed seed content shall not be more than 0.5% and the total content of other crop seeds shall not exceed 1%.

12.1.6 The finished levels for seeding shall, unless otherwise indicated on the drawings, be perfect to the surrounding contours and 25 mm above any adjacent hard surfaces.

2.3.3 PART C: ENHANCED AGRONOMIC MAINTENANCE – ALL AREAS

PART C: ENHANCED MAINTENANCE SPECIFICATION

Item	Operation
P1	If applicable and depending on the operation, the Contractor shall allow for all necessary fencing and signage in order to secure the working and site compound areas and haulage routes in order to protect members of the public from the works. It is anticipated that fencing shall be used to demarcate the working areas and site compound. Footpath crossing points shall be marked appropriately.
P2	The Contractor shall allow for compliance with all relevant Health and Safety regulations including the Construction Design and Management regulations (CDM) 2015. This shall include performing the role of Principal Contractor.
P3	The Contractor shall allow for the provision of all welfare facilities for staff.
P4	The Contractor shall allow for the mobilisation and demobilisation of all necessary plant to complete the project.
P5	The Contractor will be responsible for making good any damage caused by maintenance.
P6	Please note, these specifications are purely advisory and based on best practice. This specification should not be carried out by personnel who are not competent in Sport Pitch maintenance. The implementation plan and schedule of works may change depending on ground and weather conditions.
C1	Deep scarification. Scarification in two directions to a depth of 10 mm to reduce and control the level of organic material (thatch) at the grass sward base and encourage the development of an upright grass sward habit. Scarification should only be conducted during strong growing conditions and following a fertiliser application at least 2 weeks' prior to scarification. All arising shall be disposed of off-site in the "pylon" area. Do not scarify in wet ground conditions or during periods of drought.
C2	Selective herbicide. An application of an approved and appropriate selective herbicide should be applied in the spring or early summer at least two weeks after any fertiliser treatment and at a time when grass growth is strong and healthy. Do not apply herbicide during periods of potential turf stress i.e. if the weather is hot and dry or if the weather is frosty. Apply herbicide strictly according to the manufacturer's label recommendations. Herbicide should only be applied by a competent certified operative. Risk assessments shall be carried out by all personnel paying particular attention to members of the public and wind conditions.
C3	Decompaction. Verti-drain the development area on two occasions (e.g., April and September) when ground conditions are suitable (sufficient water content to allow penetration of Verti-drain tines to full operating depth, but with soil in a non-plastic condition). Ideally use 18 mm diameter solid tines working to a minimum depth of 200 mm below the surface. Heave adjustment shall be dictated by ground conditions.
C4	Sand topdressing. A 5 mm deep application of sand shall be applied to the surface when the turf is healthy and actively growing in late spring and during renovation work. Topdressing treatments should be preceded by an appropriate mechanical treatment such as Verti-draining or scarification and thoroughly brushed into the surface after application when the sand is dry.

The sand shall comply with the following specification:

- V. coarse sand (2.0 – 1.0 mm) <5%
- Coarse sand (1.0 – 0.5 mm) 10 – 20%
- Medium sand (0.5 – 0.25 mm) 55 – 70%
- Fine sand (0.25 – 0.15 mm) 10 – 20%
- V. fine sand (0.15 – 0.05 mm) <5%
- Saturated hydraulic conductivity >300 mm h^{-1}.
- pH 5.5 – 7.0.
- Contain less than 0.5% (w/w) $CaCO_3$.
- Compliant with Tier 1 Classification.

After application, the surface shall either be brushed or drag-matted to work the sand into the surface. Sand shall not be applied if the turf is under stress (e.g. drought conditions).

C5 Fertiliser. The Contractor shall allow for a minimum of three fertiliser applications to maintain healthy grass plant growth and colour throughout the growing season. Plan for the first application of fertiliser to commence in March/April when weather and ground conditions are conducive to the start of healthy turf growth. Fertiliser applications should not be applied when turf is under drought stress and should ideally be applied prior to rainfall. Allowance should be made for a sufficient number of fertiliser applications to maintain healthy growth and colour. The fertiliser regime should be based on the results of annual soil sampling to determine nutrient concentrations, but the following programme is provided as a guide.

Mar/April	15:5:15 at 350 kg/ha
Aug/Sept	15:5:15 at 350 kg/ha
Oct	4:5:15 at 350 kg/ha

C6 Overseeding. The pitches can be overseeded at any time from March through to September, although generally over-seeding is carried out at the end of the playing season to ensure new grasses are well established by the start of the following season. Overseed with a suitable Perennial ryegrass seed mix drilled at ~25 g m^{-2} using a disc or dimple seeder. The seed mix shall be made up from at least three varieties each with a minimum rating for the mean of live ground cover and visual merit of 7.0 as listed in the latest BSPB Turf grass Seed Book, Table S1: Perennial Ryegrass, Sports Uses.

2.4 WORK SCHEDULES

Please refer to the accompanying MS Excel spreadsheet:

TGMS1315.2 Phase 1 Jubilee Park Work Schedules 19 02 24 REV1 15 03 24

Please note: Quantities have been provided in the Work Schedules referred to above however these are indicative only and must be verified by the Contractor. TGMS accepts no liability for these quantities, which must not be relied upon.

2.5 DESIGNERS ASSESSMENT OF RESIDUAL RISK

2.5.1 The Project

- Name: Jubilee park.
- Nature: Pitch improvement works (Phase 1).
- Location: Jubilee Park, 357 Reading Road, Henley-on-Thames, RG9 4HA.

2.5.2 Nature of work:

The Phase 1 work proposed in this specification shall be as follows:

PART A TRIANGULAR AREA - NEAR READING ROAD

- Setting out.
- Fraise mowing (to remove thatch layer).
- Initial cultivations.
- Topsoil strip and stockpile.
- Cut & fill remodelling earthworks to increase the “flat” area.
- Return of site-won topsoil over “flat” area and batter slope.
- Cultivation and grading.
- Stone separation and removal (disposal off-site).
- Surface re-grading.
- Installation of a French drain.
- Disposal of excavation spoil (off-site).
- Sand topdressing (10 mm).
- Fertilisation and seeding.
- Reinstatement of damage.
- As-built survey, O&M Manual and H&S File.

PART B BUND AND TRACK REMOVAL - SOUTH-EASTERN PITCH AREA

- Setting out.
- Removal of vegetation from the bund.
- Excavation and removal of the hardcore track.
- Disposal of track arisings in the “pond” area.
- Excavation and removal of the bund to temporary stockpile.
- Cut & fill remodelling earthworks to increase the pitch area.
- Return of bund topsoil.
- Importation of additional topsoil.
- Stone separation and removal (disposal off-site).
- Surface re-grading.
- Sand topdressing (10 mm).
- Fertilisation and seeding.

PART C ENHANCED MAINTENANCE – ALL PITCH AREAS

- Deep scarification.
- Selective herbicide.
- Decompaction.
- Sand topdressing.
- Fertilising.
- Overseeding.

2.5.3 Timescale for works:

12 weeks plus agronomic maintenance

2.5.4 Existing drawings:

See Table 1 above.

2.5.5 Existing environment:

The site currently comprises an established playing field.

2.5.6 Residual risk to construction workers:

1. Tetanus.
2. Injury from vehicle movements in and around site.
3. Potential fall hazard from exposed trenches prior to backfilling.
4. Fertiliser application.
5. Herbicide application.
6. Materials handling.

2.5.7 Residual risk in maintenance:

1. Tetanus.
2. Injury from vehicle movements in and around site.
3. Fertiliser application.
4. Pesticide application.
5. Materials handling.

2.5.8 Residual risk to users:

1. Sports injury if surface improperly maintained.

2.5.9 Construction materials that are hazardous to health:

1. Pesticide.
2. Fertiliser.
3. Plant growth regulators.
4. Soil.

2.5.10 Site wide elements:

The working areas and haul routes shall be fenced with Heras fencing, or similar, to delineate these areas. This fencing shall be maintained until handover to the Client.

2.5.11 Method statements & risk assessments to be provided by contractor:

1. Scrub removal (from the bund).
2. Topsoil strip.
3. Subsoil re-grading and topsoil return.
4. Seeding.
5. Fertiliser application.

2.6 METHOD STATEMENTS

ITEM	Brief method statement (Continue on additional sheets if required)	Type/ name of equipment you intend to use	Is equipment owned by the contractor?	Is equipment rented?	Will work be sub-contracted?	How many staff will be on site?
1. Scrub removal (from then bund).						
2. Topsoil strip.						
3. 3. Subsoil re-grading and topsoil return.						
4. Fertiliser application.						
5. Seeding.						

2.7 SUBCONTRACTORS

Please specify the names and contact details for any subcontractors that you intend to use during the project (please continue on a separate sheet if necessary):

Name:	Contact Details:	Role:

2.8 PAST EXPERIENCE

Please provide details from recent (last 3 years) schemes where you have carried out projects similar in size and complexity. Please give name, address and telephone number for the referees.

Location:	Systems & renovation detail:	Project value (£):	Contact details

2.9 MATERIALS PROPERTIES CHECKLIST

Please supply the following information with your tender

Material	Required information
Drainage pipe	Manufacturer Product name Warranty Type of plastic Reference sites for previous UK installations
Gravel	Supplier Product name Quarry location Particle size distribution pH CaCO3 content
Sand	Supplier Product name Quarry location Particle size distribution pH $CaCO_3$ content Saturated hydraulic conductivity Porosity Capillary rise
Rootzone	Supplier Product name Quarry location Particle size distribution pH $CaCO_3$ content Saturated hydraulic conductivity Porosity Capillary rise Organic matter content

2.10 CONFIDENTIALITY

This specification is confidential and is only for the use of officers of Henley Town Council and AFC Henley Football Club. Without the specific consent in writing of PSD / TGMS, no copies of this document are to be made and information contained herein should not be communicated to any third party. At the request of TGMS all copies of this document, in whatever form, are to be returned.

2.11 CONTACT DETAILS

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