



Penrith City Council

Cook Park Synthetic Surfaces Specification



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SPECIFICATION STRUCTURE

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SECTION A: PROJECT INTRODUCTION & SCOPE

Section A Structure

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2. Scope of works
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1. INTRODUCTION TO THE PROJECT

1.1 Introduction

This specification has been structured to provide the technical information needed for the Main Tenderer to secure a quality, experienced and approved sub-contractor that will meet all of these requirements for the synthetic system requirements. The nominated sub-contractors are listed below and it's the Main Tenderers responsibility to partner with the right contractor to achieve the vision for the surface. The Tenderer may submit options for upto 2 sub-contracts and their systems, allowing Council to make the technical choice and not just based on price.

The approved sub-contractors are, in alphabetical order:

- Bild/TurfOne with a FieldTurf system
- Polytan with a Polytan system
- Synergy Turf with a Greenfield system
- TigerTurf with a Tencate system
- Tuff Group with a CCG system

Once Council confirms the nominated system this can not be changed without direct agreement with Council and the Tenderer AND the sub-contractor directly.

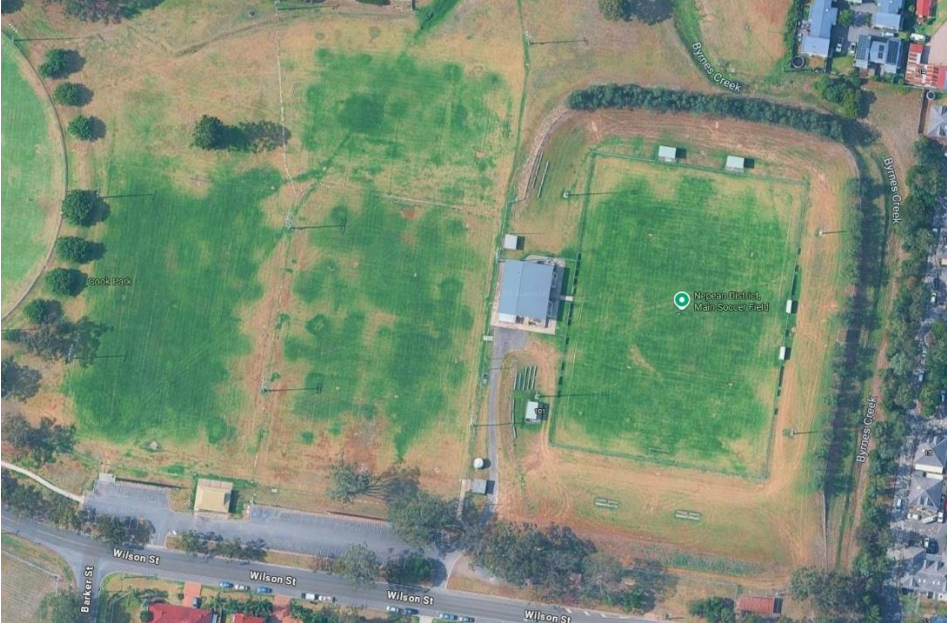
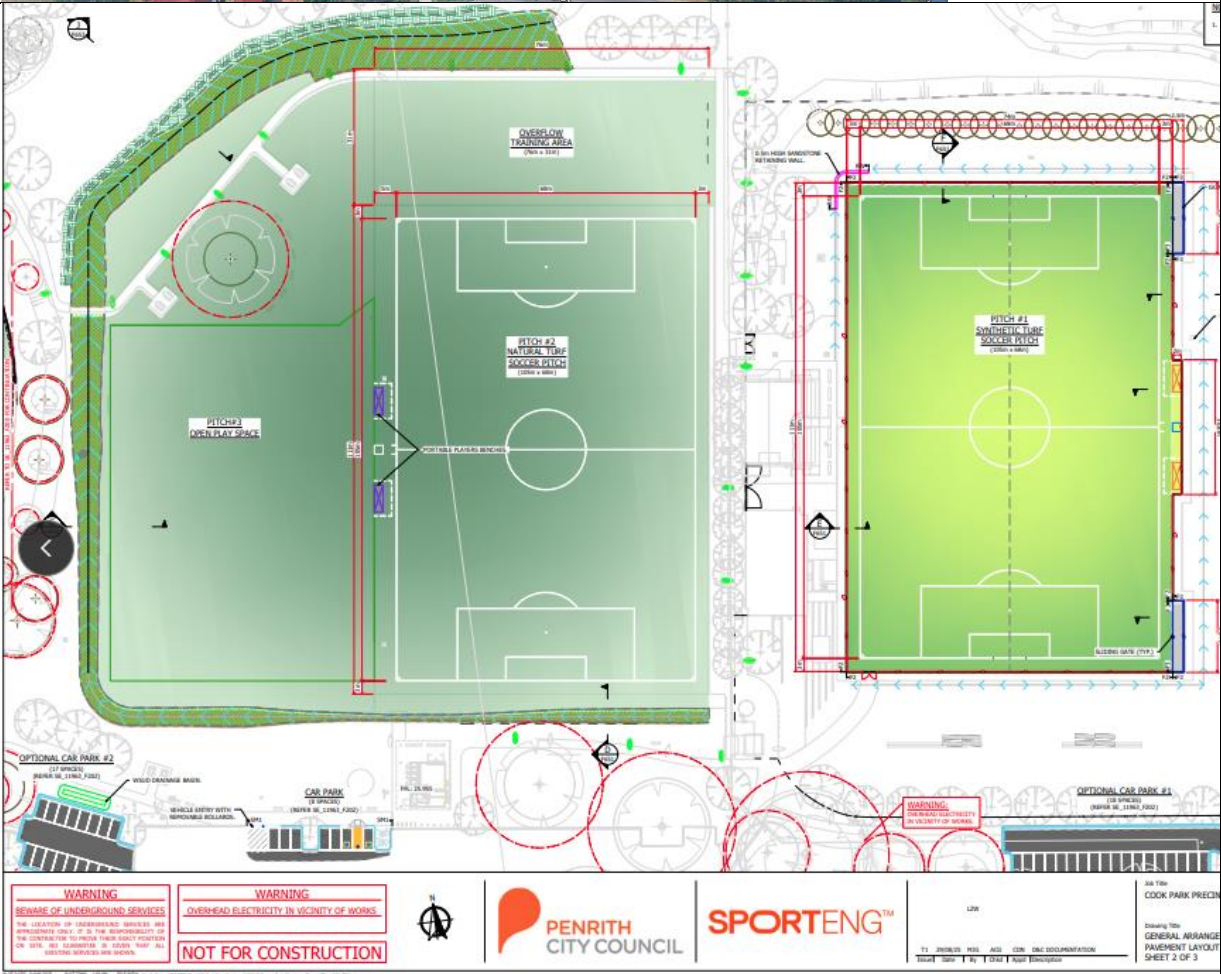
The information provided includes:

- Technical specification for various disciplines,
- Site technical assessments by third parties to allow tenderers to have an understanding of the site,
- Drawings to provide indicative layout and design expectations.

This information will be linked to the Tender Schedules to allow alignment.

1.2 Project Details

Project Overview	
Name of Client/Principal	Penrith City Council
Project Name	Cook Park Synthetic Sports Field
Name of Site	Cook Park
Field Name	Field Number 1
Address	Wilson Street, St Marys, NSW 2760

Project Overview	
Site Map	
Field Layout Design (Summary)	
Existing Site Information (Appendix)	
Site Feature	Site Survey Reference: TBC
Survey	
Geotech	Geotech for Field #1.....TBC
Investigation	

Project Overview	
Environmental Investigation	Environmental assessment for Field #1.....TBC
Existing Site Services Information	
Tree Assessment	
Flood Report	Flood Report for field #1.....TBC
Client Strategies to Embrace	
Stormwater and drainage services	See 50% Drawings from SportEng for reference
Lighting Plan/Strategy	See 50% Drawings from SportEng for reference
Drawings Ref N°	See 50% Drawings from SportEng for reference

1.3 Tender and Contract Documents | Order of Precedence

The project works need to comply with the requirements of the following documentation:

- Tender documents – To ensure all documents are completed to allow the Tenderer to be considered. This includes the Request for Tender and Tender Schedules,
- Conditions of Contract – rules of working together for the Tenderer to be aware of, for the clients expectations,
- Specifications
 - i. This specification
 - ii. Reference drawings
 - iii. Other specifications – Technical (as listed)
 - Council specifications (as listed)
 - State government (as listed)
 - iv. Australian and global standards (as listed)
 - v. Industry best practice guides (as listed)

2. SCOPE OF WORKS

2.1 Summary of Works Overview

This Request for Tender is for the Design Finalisation and Construct of a Football (soccer), sports field with the following summary of components and specified within the Contract:

- Design finalisation stage,
- Project initiation and control of the site,
- Demolition and/or removal of specified elements,
- Earthworks and landscaping across the site,
- Drainage, irrigation,
- Civil engineering and construction works,
- Performance surface and warranties,
- Fencing and netting,
- Lights and associated software,
- Ancillary equipment,
- Maintenance and renovation,
- Project completion, handover and certification.

2.2 Works Details Summary

2.2.1 Design Finalisation for Construction stage

- Finalisation of design reference drawings (including verifying existing underground services – drainage, irrigation, utility, etc),
- Design of pavement to reflect third-party site assessments,
- Project plan to agree on project outcomes,
- Specific site requests,
- Methodology approval.

2.2.2 Project initiation and control of site in association with the Main Contractor

- Environment and site establishment,
- Site compound,
- Site survey, confirmation of sizes, layout and engineering considerations,
- Documented quality systems established and approved,
- Insurance and project compliance approved,
- Project prelims.

2.2.3 Demolition and/or removal of specified elements

Demolition and disposal off-site of key components, including but not limited to:

- Stormwater drainage.
- Irrigation,
- Goal posts associated footings,
- Perimeter fence,
- Lights.

2.2.4 Earthworks and landscaping across site

- Removal and disposal of existing growing medium (approx. 150mm depth) as directed by Council,
- Bulk earthworks.

2.2.5 Drainage, irrigation and water harvesting

- Installation of drainage solution under and surrounding the field of play and connect to stormwater drainage network,
- Installation of potable water system to water bubblers around field of play,

2.2.6 Civil engineering and construction works

- Final trimming and compaction of sub-grade to specified tolerances and/or level,
- Construction of pavement base for the performance surface to be laid that meets the performance standards identified.

2.2.7 Performance surface and warranties

Construction and installation of a synthetic sports surface system to be certified to the following sports certification level for the FIFA Football Turf system - FIFA Quality

2.2.8 Fencing and netting

- Installation of spectator fencing around the field of play, including vehicle and pedestrian access gates and footings into a concrete plinth surrounding the field of play,
- Installation of pedestrian footwear and vehicle tyre cleaning grates, as specified,
- Installation of netting as specified with footings,
- Construction of goal storage area.

2.2.9 Lights and associated software

- Sports lighting to specified standards,
- Software for lights for flexibility of use,
- Pedestrian lights.

2.2.10 Ancillary equipment

- Goals, posts, flags,
- Coaches boxes and interchange furniture and fittings,
- Scoreboard and fittings.

2.2.11 Maintenance and renovation of performance surface

- Production of Operational Manual and training program regarding maintenance,
- Ongoing maintenance according to the specified scope,
- Production of bi-monthly reports,
- Annual independent assessment of the field.

2.2.12 Project completion, handover and certification

- Handover of the field of play and project outcomes to the Principal,
- Production of Handover Operational Manual as specified,
- Production of 'As Built' drawings,
- Certification of playing surface.

3. REFERENCE DOCUMENTS

3.1 General

All works specified and those relating to other external standards shall ensure that the delivery of this project has a core life expectancy of 30 years, with specific components reviewed during that period (e.g. grass surface).

All works must conform to the following as a minimum and all other standards required to complete this project, including:

- Stated specifications as part of this contract,
- Pavement base standards within the State road standards,
- Australian standards for each component of the project,
- Surface performance standards, issued by the International, National or State Sports Organisations / Federation as identified,
- Reference documents to provide adequate information to understand the requirements of the site, as provided AND where missing to be provided by the Tenderer.

3.2 Scope Legislation Obligations

The Tenderer must carry out all of the works in accordance with the compliance obligations and spirit of the legislation provisions and standards, including but not limited to:

- Health and Safety legislation,
- Environmental Protection Acts,
- Local Government Act,
- Road management legislation,
- International and Australian Standards and Codes of Practice,
- National and State/Territory Acts and Regulations,
- Council/Local Laws and relevant policies,
- Water Board legislation and obligations.

3.3 Existing Site Information

The following 50% drawing documents have been created as a guidance and reference allowing the Tenderers to appreciate the design philosophy and where they think can be enhanced for either performance or value engineering should be enhanced.

Additional background information has been provided relating to the existing site conditions and are provided within the Appendices documentation. These documents are provided for Tenderers to determine the extent of works, but the Tenderer must satisfy themselves of all site conditions including existing conditions of the site, existing vegetation, existing site services, access and the like.

3.3.1 Site feature survey

The survey of the site is provided in Appendix 1 available for information only:

The Contractor must confirm the completeness and accuracy of all such information prior to commencing works. Any discrepancies between the information provided in the specifications and drawings with that encountered on site must be reported to the Superintendent without delay.

Works relating to or affected by the disputed levels shall not commence until direction is given by the Superintendent.

3.3.2 Geotechnical investigation

The geotechnical report for the site is provided in Appendix 2 for information only:

The Contractor must confirm the completeness and accuracy of all such information prior to commencing works. Any discrepancies between the information provided in the specifications and drawings with that encountered on site must be reported to the Superintendent Representative without delay.

3.3.3 Environmental site assessment

The environmental report for the site is provided in Appendix 3 for information only:

3.3.4 Tree protection report

The Tree Management Plan for the site is provided in the Specification Appendix 4:

The Contractor must confirm the completeness and accuracy of all such information prior to start of works.

3.3.5 Existing site services information

The existing Services information for the site is provided in the Specification AppendixXX:

3.3.6 The Contractor must confirm the completeness and accuracy of all such information prior to start of works and their design` `

The Flood Overlay / Plan for the site is provided in the Specification Appendix 4:

The Contractor must confirm the completeness and accuracy of all such information prior to start of works and any impact on the design needs to be considered.

3.3.7 Documentation status

The existing feature, level and services information provided on the drawings cannot be guaranteed. The Contractor must confirm the completeness and accuracy of all such information prior to commencement of works. The Contractor must report any discrepancies between the information provided in the specification and drawings with that determined on site without delay to the Principals Representative.

The information contained in the drawings and specifications may also be subject to certification or approval by statutory and regulatory authorities.

Acceptance of the works described in the specification are subject to independent certification by the Independent Test Institute on behalf of FIFA for the Cook Park Field#1 component. The certification is included in the Contractor's scope of works.

It is the Contractors overriding responsibility to ensure that Football compliance is obtained, with the International Federation and National Sports/State Sports Organisation. The details included in this specification are provided as information only.

4. DEFINITIONS

For the project, the following definitions are used.

Key Word	Definition
Client / Principal	Penrith City Council
Contractor	The successful Tenderer that is appointed by the Principal to deliver the Project. They will be responsible to the Head or Main Contractor, who will also have responsibility for the construction of the facilities building and the roads and paths outside of Field #1
Design Finalisation (DF)	The Tenderer has the obligation to take the Reference Drawings and Specification to a Detailed Design stage ready for Construction. The aim of the Design Finalisation Contract is to allow the Tenderer to bring specific proprietary solutions to the project.
Field of Play	The size of the surface that this Contract relates to Field #1.
Parkland	The land that the Field of Play is found within
Project	Cook Park Synthetic Sports Field Construction
Superintendent	The nominated officer or representative of the Principal
Synthetic Turf System	The synthetic turf system will include the shockpad, carpet (backing & yarn) and infill (ballast & performance infill).
Tender Evaluation Panel	A Panel of Council staff that reflects the projects skill set that will evaluate the submissions objectively against pre-determined criteria, with recommendations of a preferred Tenderer.
Tenderer	The organisation that complete the Request for Tender documents.
Warranty	The manufacturers guarantee on their products quality to achieve the required levels specified.

5. REQUIRED QUALITY, EXPERIENCE, CAPACITY & CAPABILITY OF TENDERERS

5.1 Introduction

The Principal requires the best possible synthetic Football Turf system and associated works that are fit for purpose, allows for the identified usage and is designed for future expectations around growth in demand as scoped in the specification.

To ensure that the Principal secures the best Tenderer to provide the best synthetic sports turf system, the Tenderer Evaluation Assessment has been aligned against its needs, namely:

5.2 Mandatory Pre-Requisites

The Tenderer needs to demonstrate the following mandatory pre-requisite qualifications:

- Recognised manufacturer or licensee of the identified sports International Federation, or the Agent (with signed letter of authority) of the licensee or manufacturer, namely a FIFA Licensee or FIFA Preferred Producer
- Construction and installation experience - Has installed directly or through members of the Contractors Team, a minimum of 2 fields to the sports International Federations (IF) required performance standards which has been certified in Australia in the last 2 years.

5.3 Tender Requirements

The Principal is seeking to procure the best Tenderer that will provide a synthetic surfaces solution that is fit for purpose. This will consider the following aspects:

5.3.1 Financial and best value assessment

The cost of this Project compared to the Quality (non-price) attributes ensures that the Principal is providing the Best Value for its community, comparing the Whole of Life (WOL) with the cost of capital investment, maintenance, and projected replacement costs. Product and system warranties will also be considered, together with a guarantee that the civil components of the system will last for at least 30 years.

5.3.2 Experience, capability and capacity of tenderer

The Principal requires a suitably experienced Tenderer who can demonstrate experience, capacity and skills in:

- **Design finalisation** – of the synthetic sports field against this specification, the schematic drawings and the identified sports performance standards stated. The Contractor requires key and qualified personnel available for this project against the time period shown. They need to have proven broad experience on other projects that will initially confirm the schematic drawings, the specification and then enhance the design solution for this Tender and has capacity at each stage of this project.
- **Construction** – for the civil engineered pavement, drainage and construction works and has worked in the civil engineering and earth moving area either directly or in association with a named sub-contractor, to the fine tolerances expected in this type of project. It will be looked at more favourably if the Tenderer and sub-contractor have worked together previously on this type of project.
- **Installation** – have named and experienced people on the Tenderer's team (employed or subcontracted) that have personally and successfully installed this quality of surface in other projects that have been certified.
- **Maintenance** – have proven experience in the management of the maintenance of the fields post installation for a period that includes the successful monitoring and re-testing.
- **Project management** – of the design, civil engineering works liaises with subcontractors, stakeholders and working with the Principal, sport and the installation and certification process.
- **Certification** – that an Independent Test Institute is part of the Tenderer's team, who has been certified to be able to conduct this type of testing for this sport's International Federation.

- **Agreed outcomes** – that the Tenderer has delivered on time and to budget in previous projects and that there is not excessive variations to contract costs that were not foreseen by the client prior to the start of the contract will be explored through Reference Checks.
- **Capacity** – it is envisaged that the Tenderer's capacity will be assessed and based upon ability to deliver the project within the agreed timelines.
- **Reference and independent site assessment** – site and client references will be sought as part of this evaluation.

In addition, the Tenderer has to demonstrate that they have the financial capacity to cash flow the project up front and without any advance payment from the Principal. The payment mechanism for the Principal is to pay retrospectively for the work that has been carried out the previous month, including any purchases of materials that are delivered to site, and which has been verified by the Principal. The Principal will not pay instalments up front.

5.3.3 Quality of offer

The quality of the synthetic sports turf system being offered needs to meet the specified standards and the solutions for the sports performance standards specified in the sections identified below, and are proven in a manner that provides confidence to the Principal and specifically:

- **Certified synthetic sports turf system** – that as a whole system, meets the specified local needs and addresses the International Federation Standards, the additional project requirements, the local sports needs and specific solutions for this site.
- **Ancillary products** – that are specified by the sport to ensure that the surface is fit for purpose, such as the goals, the corner flags, coach's boxes etc.
- **Fence** – that meets the security needs and playability flexibility for the field of play.
- **Warranties and certification** – to ensure that the life expectancy is achieved, and any poor workmanship and / or product default is covered so that the field can be rectified with minimal disruption to its usage. It is critical that the warranties meet the requirements of the specification. If the warranties do not, then the Tender may not be accepted and deemed non-conforming.
- **Maintenance offering** – in a cost-effective manner that will ensure that the life and playing performance of the fields are maximised and that the playing field will be recertified in three years' time.
- **Floodlights and pedestrian lights** – that consider the capital costs, usage, maintenance and replacement costs as well as the operational logistics and the impact on the sport; and
- **Infrastructure and equipment** – major equipment and infrastructure that will ensure that the landscape design integrates into the overall site both visually and practically.

5.3.4 Quality assurance, capacity and operational logistics

The Principal requires that the successful Tenderer demonstrate good management practice in a manner that reduces risk to the community and maximizes the quality of the development.

- Quality assurance, safety and risk management,
- Project management of the installation.

5.4 Tender and Contract Responsibility and Obligations

A summary of requirements at each stage of the procurement process is provided below:

5.4.1 Tendering requirements

The works are for the construction and installation in accordance with the criteria and requirements in this Contract and Specification and ensure compliance to the International Federation referenced within the Specification. It is the obligation of the Tenderer to ensure the accuracy of all information provided to ensure that the field of play size, civil engineered pavement, performance standards and purchase of any or all equipment meets the required standards as part of the design finalisation. This will include conducting an independent survey prior to project progression and in case it impacts on the design finalisation. If there are any differences, it

is the responsibility of the Tenderer to identify these to the Principal before installation, otherwise any rectifications to meet any such identified standards will be at the cost of the Tenderer.

The Tenderer must complete each of the schedules requested. Failure to complete each section of the schedules will result in a zero score being attributed to the scoring assessment. This will have an impact on the short-listing and/or appointment of the preferred Tenderer.

5.4.2 Short-listed Candidates

If a Tenderer is short-listed, they will need to bring to the interview the following:

- 1) A fully made-up synthetic sports system that will be left with the Principal, allowing for a cross-section to be seen;
- 2) The synthetic turf that shows the various specified colours sewn into a piece of turf carpet (i.e. green turf with white lines and secondary line colour as specified);
- 3) A copy of the Tenderer's Quality Assurance System, which should be the same as the contents page requested in the Schedules (this will be checked off by the evaluation committee and returned at the end of the interview);
- 4) Samples of the recommended infill (separate to the made-up system);
- 5) File showing example Maintenance Reports (fortnightly, quarterly and annual) from a client that will be used for this contract and that meets the specification requirements;
- 6) Example of sleeve, used for goal posts flags that has a 'pull out cover'; and
- 7) The Contract Manager and Site Manager/Foreman who will be managing the contract and working directly with the Principal.

These requests will be scored and aligned to the Tender Evaluation Process, failure to bring any along may result in a zero score for that aspect.

5.5 Tendering Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
Conforming Tender	Completion of all Tender Schedules	1, 2, 3, 4, 5
Mandatory prerequisites	Demonstrated evidence of qualifications	2
Best Value	Experience, capacity, capability	9
Quality of offer	Specified standards can be achieved	2, 9
Quality Assurance	Demonstrated quality systems approach	6

6. PROJECT PRELIMINARIES

6.1 Standards and Legislation

The Contractor must demonstrate competence throughout the project, specifically in relation to the qualification and experience of the tradespeople and subcontractors engaged, to achieve their specified standards of workmans time.

All works must conform to this Contract and Specification, together with all relevant statutory legislation, specified, implied or accepted within the industry sectors responsible for each aspect of this project.

Any works carried out that do not conform to these standards or legislation will be deemed non-conforming. Therefore, any rectification works to meet these standards and legislation will be the responsibility of the Contractor and at no cost to the Principal.

The specified standards may include, but not limited to:

- Occupational Health and Safety legislation,
- All relevant Australian and International (AS & ISO) standards,
- Relevant Commonwealth, State/Territory Acts and legislation,
- Local laws from Council,
- Specific sports performance standards, as specified in each section.

6.2 Project Initiation & Site Management

6.3.1 Introduction

The Head Contractor has the responsibility of site management and project initiation against the specified date until handover. Their responsibility will include but is not limited to the sections within this Contract.

6.3.2 Site management

The Head Contractor is responsible for

- i. Preliminary and General
 - a. The establishment on site of all work facilities and removal of same on completion,
 - b. The Head Contractor's supervision and admin and any from the Synthetic field sub-contractor ,
 - c. Barricading the site to prevent public access to contract area during daylight and hours of darkness. To place signs warning public of danger and prohibiting access to unauthorised persons. The Head Contractor shall provide safety fencing with the protection of small children in mind and should understand their responsibility under the existing relevant Statutory Acts,
 - d. Giving notices and paying all fees which may be required,
 - e. Cost for providing Public Liability and Professional Indemnity Insurance as specified herein,
 - f. Allowances to provide "As-Built" drainage, water and service reticulation, path, sub-soil draining, fences, etc. and to provide such information to the Principal,
 - g. Allowing for co-ordination, liaison and co-operation with work carried out by other approved contractors,
 - h. All costs associated with the preparation and implementation of the Work Health and Safety Plan for all works on the site that complies with all statutory requirements,
 - i. The identification, location and protection of all existing services and tree roots within the contract area whether indicated on the drawing or not,

- j. The site survey and geotechnical testing of the works and assuming the responsibility for the same,
- k. Allowances for identification and monitoring protection to existing structures before, after and during construction works (including photographic evidence),
- l. All costs associated with geotechnical monitoring of the site (e.g. retaining walls, earth work subgrade testing etc).

6.3.3 Work, health & safety

Under the WHS Act, the Head Contractor is totally responsible to ensure for the health, safety and welfare of his employees and others in the vicinity of the works. This shall include all members of the general public.

In accordance with the WHS Act 2011, the Head Contractor shall ensure that:

- Safe plant and system of work are provided and maintained,
- A safe workplace is provided,
- Adequate facilities for welfare are provided,
- Information, instruction, training and supervision are provided; and
- Risk assessments and safe work method statements are in place and complied with for all site visits.

The Head Contractor shall report all accidents and incidents to the Principal representatives within 24 hours of the incident occurring. Each report shall clearly outline and analyse the causes of the accident or incident and propose ways of avoiding the recurrence of similar problems. The Head Contractor shall be responsible for notification of accidents and/or incidents to WorkSafe NSW.

The Head Contractor shall provide adequate First Aid facilities, which shall comply with the relevant Australian Standards and Work Health Safety Act. The First Aid facilities shall be clearly marked and readily accessible to all personnel at all times.

The Principal requires the submission of a site specific WHS Management System which includes WHS Risk assessment and Safe Work Method Statements setting out measures for the compliance with requirements to the relevant legislation and regulations prior to any work commencing on the site.

The Head Contractor shall erect the appropriate warning and safety signs in prominent locations around the site. Such signs include, but are not limited to:

- “Danger – Construction Site, No Unauthorised Access” and;
- Personal equipment signs as required (e.g. safety, boots, hard hats etc.).

The above requirements are also required by all sub-contractors working on the site.

6.3.4 Traffic management plan (TMP)

Preparation of the TMP and its implementation under a Traffic Guidance Scheme (TGS) shall only be undertaken by the Head Contractor or Sub-contractor suitability prequalified with the relevant authority.

The Head Contractor is responsible for gaining approval of the TMP from the Principal at least 7 days prior to works commencing or earlier if required.

The TMP and TGS (including any access requirements) shall be approved by the Principal and NSW RMS as appropriate to the Project.

6.3.5 Site facilities

A work site compound including workers toilets and all necessary storage and accommodation facilities shall be provided by the Contractors required by persons engaged to carry out the work.

The Head Contractor shall liaise with the Superintendent Representative with regards to location of site facilities.

6.3.6 Construction access

Construction access shall be from the main access roads and gates leading to the site as required for the type of work to be undertaken. Construction access shall be confirmed with Superintendent Representative prior to use.

The Contractor shall liaise with the Principal Contractor and Site Superintendent detailing the proposed construction access.

6.3.7 Construction zone fencing

Erect and maintain site construction fence as temporary protective fencing, preventing public access to the work area as required when works are being undertaken. All fences shall be maintained while required to protect work areas.

Generally, this shall be a 1.8-metre-high steel temporary fencing, where existing site fences are not acting as site construction barriers or are required to be removed due to construction activity.

Fence to be removed at the completion of the construction works at a time agreed with the Superintendent.

The Contractor shall liaise with the Principal Contractor and Site Superintendent detailing the proposed construction zone fencing.

6.3.8 Damage and structural integrity

The Head Contractor must ensure that no activity shall cause damage to, or adversely affect the structural integrity of adjoining buildings, structures, light poles, etc. Consideration shall be given to the use of shoring, and underpinning, and to changes in the soil conditions as a result of works, and appropriate action taken. The proposed methodology shall be issued to the Superintendent Representative for approval.

The existing concrete areas and buildings adjacent must not be damaged in any way throughout construction. Any damage will be at the contractor's cost.

6.3.9 Vibration and concussion

The effects of vibration and concussion on adjoining buildings and their occupants shall be minimised by the Head Contractor at all times and as far as practicable, by selecting construction methods and equipment appropriate to the circumstances.

6.3.10 Site specific requirements for excavation

If the site is currently under earthworks construction, it is expected that no excavation is required. Should a requirement for additional excavation be required, the Head Contractor is to seek approval from the Principal prior to any works.

Vehicle and construction access will be in accordance with the site principal contractors preferred vehicle access gates nominated. Any fences removed to allow for access shall be reinstated as currently existing to the Superintendent Representative's satisfaction.

6.3.11 Tree protection zone

Existing trees and vegetation located within the site are to be protected from damage beyond the extent of Works at all times. The Head Contractor is responsible to ensure all Trees and Vegetation within the tree protection zone is protected at all times. All costs associated with protecting trees must be included in the Tenderers tender price.

6.3.12 Protection of the environment

All work shall be carried out in such a manner as to avoid nuisance and/or damage to the environment. The Contractor shall comply with the requirements of the Clean Waters Act, the Clean Air Act and the Noise Control Act. No variation in Schedule amounts or extensions of time will be considered due to the requirements of these Acts.

The Head Contractor shall plan and carry out the Works to avoid erosion, contamination and sedimentation of the site and its surroundings.

In particular, the Head Contractor shall take care to ensure that all waste materials, (such as spoil), are cleaned up and not allowed to contaminate surrounding areas. All runoff water containing concrete materials shall be contained and properly disposed of and shall not be allowed to wash into the stormwater drainage system and surrounding natural watercourses directly but be directed through temporary on site detention basins before release during construction period. Toxic chemicals shall not be used on the site without the prior approval of the Superintendent.

The Head Contractor shall remove from the site all refuse, (including food scraps and the like), resulting from work under the Contract. The Contractor shall handle refuse in a manner so as to confine the materials completely and prevent dust emission. Disposal of refuse shall be in sealed or covered containers.

The Head Contractor shall convey all soils, earth, sand, loose debris and the like to or from the site in such a manner that will prevent dropping of materials on roads. The Head Contractor shall construct suitable access ways to and from the site and ensure that the wheels, tracks and body surfaces of all vehicles and plant leaving the site are free of mud so as to prevent carriage of mud and dirt onto adjacent pavements, roads, and other surfaces. If such contamination does occur, the Head Contractor shall, at their expense, promptly clean up the areas. If the Head Contractor does not clean up properly or promptly, the Superintendent may arrange for clean-up and charge the Contractor accordingly.

6.3.13 Lead time

The Head Contractor is to allow for any lead-time for purchasing of materials and supplies. Any known lead times shall be allowed for and minimised to ensure compliance with the Contract in particular the date for practical completion. In the program provided by Contractors all known lead times are to be allowed for. The Contractor is to advise, in writing, of any and all delays during the Contract to the Superintendent Representative.

6.3.14 Avoidance of nuisance

No noise or any other nuisance, which, in the opinion of the Superintendent is unnecessary or excessive, shall be permitted to occur in the performance of the Works under this Tender. All dealings with the general public must be in a courteous manner, and any requests and/or complaints shall be passed on to the Superintendent as soon as possible.

6.3.15 Plant, equipment and operators

The Contractor will ensure that all plant and equipment (whether owned, leased or subcontracted) engaged on any part of the works or involved in any activity associated with the works:

- Meets all statutory requirements,
- Is in safe working order and has been regularly serviced and maintained,
- Is suitable for the nature of work for which it is intended to be used; and
- Is in a condition fit for its intended use.

The Contractor will also ensure that the operators of all plant and equipment engaged on any part of the works or involved in any activity associated with the works (whether employees or subcontractors):

- Have appropriate licences,
- Are suitably qualified and experienced to operate that plant or piece of equipment for the work or activity being performed; and
- Have the Principal's acceptance or otherwise of proposed Sub-contractors shall not limit and in any way the Contractor's obligations under this clause.

Where inadequate or inappropriate action by the Contractor results in costs, losses or damages incurred by the Principal or claims by third parties against the Principal for either direct or consequential costs, losses or damages, the Contractor shall be liable for costs, losses or damages associated with any claim including but not limited to administration costs incurred by the Principal in resolving such claim.

6.3.16 Damage by others

The sites may be subject to periodic vandalism and any contractor must take this into account during the storage of materials and construction works. The Principal is aware that vandalism has been known to occur on the site to existing the Principal's assets. Contractors are to take all precaution and allowance for any potential vandalism during construction and possession of site.

The Contractor shall be responsible for the watching and safekeeping of the Works Under Contract. The Contractor shall repair damage caused by others and any necessary action to secure recovery of costs from the offending party shall be the Contractor's responsibility.

6.3.17 Rock encountered in works

During the Tender Period, the Contractor shall make a full assessment of the ground conditions likely to be encountered on the Site. On no account will extras be considered for rock encountered in the excavations.

Blasting restrictions occur in the vicinity of existing services and properties. The Contractor must comply with the directions given by the Responsible Authorities for protection of their assets and adjoining property.

6.3.18 Ground water / water table encountered in works

During the Tender Period, the Contractor shall make a full assessment of the ground conditions likely to be encountered on the Site. On no account will extras be considered for water table being encountered in the excavations.

6.3.19 Dust control

Where and when dusty conditions exist, which result in reduced visibility for road users and a nuisance factor to abutting property owners and dwellings on site the Contractor shall take immediate action to minimise the dust hazard. Payment for this work shall be deemed to be included in the relevant items in the Schedule of Quantities unless otherwise provided for.

6.3.20 Noise control

The Contractor shall take all practicable precautions to minimise noise arising out of or resulting from any activity associated with the Works Under Contract. All construction equipment shall be fitted with noise suppressors unless specially designed for quiet operation.

6.3.21 Unauthorised disposal

The Contractor is to ensure that the Site is properly signed and barricaded to prevent unauthorised disposal of waste material on the Site by others. Any rubbish or waste deposited is to be cleared from the Site immediately at the cost of the Contractor.

6.3.22 Hours of work

The working hours under this Contract will be restricted to:

- Monday – Friday 7am – 6pm
- Saturdays 8am – 1pm
- Sundays Not allowed
- Public holidays Not allowed

The proposed nominated hours are subject to the Principal's agreement, and these mentioned above may be subject to change.

6.3.24 Special requirements - General

The following items are noted as special requirements under this Specification. Where applicable, these requirements take precedence over general civil engineering work element sections.

6.3.25 Tolerances

All nominated surface works shall meet the following minimum surface tolerances:

Crushed Rock Pavement for Sports Field

- Design level: ± 10mm from the design
- Flatness: No greater than 10mm under a 3m straight edge in all directions.
No greater than 5mm under a 1m straight edge in all directions.
Surface to be free draining (i.e. no ponding)

Should the above requirements not be met, "regulation" of the pavement surface will be required.

Concrete

- Design level: ± 2mm from the design
- Surfaces to be free draining (i.e. no ponding).

Shock Pad for Sports Field

- Design level: ± 5mm from the design.
- Flatness: No greater than 6mm under a 3m straight edge in all directions
No greater than 2mm under a 1m straight edge in all directions.
No step like irregularities greater than 1mm
Surface to be free draining (i.e. no ponding).

Should requirements not be met, any out of tolerance areas shall be rectified (i.e. cut out and replaced to the extent directed by the Superintendent).

Line Marking

- Straightness: ± 10mm over any 10m length
- Location: ± 20mm

All line marking to be installed without obvious visual deviation (e.g. no step-like irregularities).
Verification.

To confirm adherence to the tolerances outlined here within the following verification surveys are required to be undertaken and submitted to the Superintendent for review and acceptance at the expense to the Contractor.

Work shall not commence on overlying layers until survey information has been approved.

Football Pitch

The following verification surveys are required for the soccer pitch:

- Spot levels on a 5x5m grid of the completed subgrade layer,
- Spot levels on a 5x5m grid of the completed granular base layer,
- Spot levels on a 3x3m grid of the completed shock pad,
- FIFA measurement report of the completed system installation.

Installation and Acceptance

It is expected that the synthetic surface installer will liaise with the civil works contractor/subcontractors to ensure that stringent tolerances are met. The synthetic surface installer shall provide written confirmation of acceptance of footing/ base assemblies.

Written acceptance of the prepared Civil Work surface shall be provided to the Superintendent by the synthetic surface installer prior to commencement of the base layer works.

6.3.26 Witness & hold points

Give sufficient notice so that inspection may be made by the Superintendent of the following.

Clause title/Item	Notice for inspection
Earthworks – Subgrade affected by moisture	3 days
Earthworks – Placing fill	3 days
Earthworks – Compaction	3 days
Earthworks – Proof roll	3 days
Earthworks – Excavating service trenches	3 days
Earthworks – Backfilling services trenches	3 days
Stormwater – Testing and inspections	3 days
Stormwater – Formwork	3 days
Stormwater – Backfill	3 days
Stormwater – Pipe Laying	3 days
Stormwater – Trench backfill	3 days
In-Situ Concrete – Inspection	3 days
In-Situ Concrete – Placing and Curing	3 days
Flexible Pavements – Compaction tests	3 days
Flexible Pavements – Placing base and subbase	3 days
Flexible Pavements – Proof roll	3 days

FIGURE 2: WITNESS POINTS

This section provides a summary of hold points for the project.

Clause title/item	Notice for inspection	Release by
Documentation Prior to Start of Project	7 days	Superintendent
Earthworks – Bad ground	1 day	Superintendent
Earthworks – Compaction Tests	3 days	Superintendent
Earthworks – CBR Tests	3 days	Superintendent
Earthworks – Sediment and Erosion Control Plan	5 days	Superintendent
Stormwater – Backfill density testing	3 days	Superintendent
Stormwater – Pipe bedding material	3 days	Superintendent
In-Situ Concrete – Concrete tests	3 days	Superintendent
In-Situ Concrete – Contractors Submissions	5 days	Superintendent
In-Situ Concrete – Materials	5 days	Superintendent
Flexible Pavements – Execution	3 days	Superintendent
Flexible Pavements – Compaction tests	3 days	Superintendent
Flexible Pavement – Crushed rock material	5 days	Superintendent

Clause title/item	Notice for inspection	Release by
Flexible Pavement – Subbase and base compaction	3 days	Superintendent
Field of Play Pitch Synthetic Surface – Acceptance of Base	3 days	Superintendent
Field of Play Pitch Synthetic Surface – Survey Verification	3 days	Superintendent

FIGURE 3: HOLD POINTS

Prior to Start of Contract

Ref.	Description	No. of copies	Hold Point Time	Sign off by
1.	Controlled copies of all construction drawings	x3	3 days	Superintendent
2.	Documented quality plan that incorporates all requests of the Contract and which is consistent with the applicable Australian Standard for Quality Systems	x1	3 days	Superintendent
3.	Site survey confirmation/conducted by contractor to confirm design finalisation, prior to system orders being placed.	x1	7 days	Superintendent
4.	Final drawings for the field of play – signed off by the identified sport with the Specification (e.g. Football NSW)	x1	3 days	Superintendent
5.	Confirmed Project Plan and accompanying updated Method Statement.	x1	3 days	Superintendent
6.	Warranty and guarantee to meet specification schedules and specifically length of guarantee (in years) and to meet play parameters (e.g. hours per week and type of footwear).	x1	3 days	Superintendent
7.	Site Management Plan.	x1	3 days	Superintendent
8.	The Contractor must provide a Traffic Management Plan and Traffic Guarantee Scheme at least 7 days prior to works and preparation on site, or earlier if required.	x1	3 days	Superintendent
9.	Construction size approvals at least 7 days prior to start.	x1	3 days	Superintendent
10.	Confirmation of hours of work will conform to the specified hours.	x1	3 days	Superintendent

6.3 Tendering Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
Project Introduction & Site Management	Methodology for site management and systems approach	15
WHS	Systems approach to OHS on site	7
Traffic Management Plan	Systems approach and experience demonstrated	6

7. QUALITY MANAGEMENT

7.1 Commitment to Total Quality Management

The Contractor must be committed to provide a quality solution to this Project that achieves as a minimum the specified requirements. The Contractor must be able to demonstrate this through their systems, plans, inspections and monitoring processes. In addition the quality of the Contractors supply chain and sub-contractors must also be part of the quality system.

7.2 Quality Assured

The Contractor will be rewarded as part of the Tender evaluation process if they have a certified quality system in place locally that reflects the scope of the project.

Head office certification of the product does not count, neither does a Quality Assurance (QA) system that is for another or complimentary industry (e.g. only construction). Recognition of QA systems should include:

- ISO9001 Quality management system
- ISO 14001 Environmental management system
- ISO 45001 OH&S Management system

If the Contractor does not have certified QA systems for the scope of this Project, they need to be able to demonstrate that they have a Quality Management system that has:

- Quality policy,
- Documented procedures that address this Project and the requirements of the above three standards,
- Management group(s) that are responsible for ensuring that the quality system is maintained and effective, with records,
- Sub-contractors and supply chain quality assessments are undertaken,
- Site quality plan that addresses the needs of this project.

7.3 Tendering Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
Quality management	Quality systems in place	6

8. ENVIRONMENTAL MANAGEMENT

8.1 Commitment to Environmental Management

The contractor must be committed to environmental management good practices in the way that they design, procure and manage this project and preferably to the ISO 14001, as good practice.

This specification has identified key environmental requirements, and the tender process will reward additional initiatives that can be demonstrated.

8.2 Environmental Management Systems

The Contractor must have an Environmental Management Policy and preferably a system that has been certified by an independent organisation. This systems approach should be able to demonstrate:

- Organisational audits to reduce environmental impact and footprint of this Project,
- Identification of waste reduction strategies that will positively impact this Project,
- Environmental program to reduce footprint impact on the manufacturing, supply chain logistics, site establishment and method statements for the construction, installation and maintenance,
- Evaluation of subcontractor environmental management practices.

8.3 Commitment to Circular Economy

The Contractor must be committed to the circular economy by being able to identify the following:

- Recycled components of the design and construction, including pavement base, drainage pipe work and components, shockpad, carpet (backing & yarn) and the infills,
- Recyclable at end of life, demonstrating the proportion of the system that can be recycled back to its primary components, including the yarn, carpet backing, infills, and shockpads,
- Reuse to extend life of the whole system with requirements that the shockpad has a manufacturers warranty for at least 20 years, the drainage components 20+ years and the civil engineering component at least 20 years.

8.4 Environmental Requirements

The Principal requires that the following environmental requirements be met to ensure that it can achieve its sustainability and environmental obligations to the community. The key areas that the Principal is keen to be embraced includes:

- Sustainability principles
 - In how the project is managed,
 - Against green engineering on the system structure around using recycled components, ensuring that the components can be reused and recyclable at end of life.
- Environmental safety
 - Ensuring that the system components are of the highest safety for the community,
 - Minimising the impact of the micro-plastics on the environment,
 - Recognising the UV pressures in Australia ensure that the proposed systems can sustain the UV challenges over their whole life, by having a higher U.V stabiliser than used in the Northern Hemisphere, with documented evidence.

8.5 Recycled/Recyclable/Reusable Green Engineering

The Tenderers are encouraged to embrace green engineering and will be rewarded in the evaluation process. The components of the system that will use recycled products and can be recycled should be identified in the Tender submission as preference will be given to a system that can demonstrate that aspects can be reused including shockpads and infill, whilst still covered by the Manufacturer's Warranty.

The Principal requires the following information to be supplied by the Contractor:

- The components and percentage of the system that is recycled (broad based) and location of source of recycled material,
- What aspects can be recyclable at the end of their life expectancy in Australia.

The synthetic turf and backing has to be able to be recycled at the end of the life 100%. This requirement must also be written into the Manufacturer's Warranty provided.

8.6 Microplastics

The synthetic sports surface must be designed in a manner that will reduce the impacts of micro-plastics from the yarn and any infill (even organic) impacting on the community. The Contractor must adhere to Australian Standard SA TR CEN 17519: 2021 *Surfaces for sports areas - Synthetic turf sports facilities - Guidance on how to minimize infill dispersion into the environment*. The Contractor is also encouraged to adopt Best Practice and of which many have been embraced within the specification.

The following have been designed within this specification and the Tenderer is encouraged to identify additional components as part of their Tender submission:

- Concrete or other lip on edge of field (200mm above infill levels) which the fence is secured within to keep the infill on the field of play,
- There is to be NO step down at the pedestrian or vehicle gates in the design and these entrances should meet all DDA obligations
- An alternative cost effective and environmentally friendly options (e.g. recycled edging) will be considered as well,
- Shoe and vehicle grates on the footpath to capture the infill,
- Regular maintenance on the field of play,
- No drag mats to be used during the maintenance of the field.

The Tenderer is encouraged to also consider:

- Carpet design and density,
- Yarn type and tuft maintenance to encourage less migration, including a monofilament/tape combination dual yarn,
- Infill splash test (< 1.5%),
- Shape of infill to encourage interlock stability.

8.7 Environmental Safety

The Contractor must be able to demonstrate that there are no environmental toxic elements within the system that could impact the environment in a negative way.

8.8 Tendering Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
8.2 EMS	Demonstrate evidence of systems and methodology	8, 10.2



SECTION B: DESIGN FINALISATION OBLIGATIONS

Section B Structure

9. Site specific requirements
10. Reference designs
11. Drainage strategy principles
12. Pavement profile
13. Certification of design finalisation
14. Construction and installation

9. SITE-SPECIFIC REQUIREMENTS

9.1 Introduction

This tender contract is based on a Design Finalisation and Construct Contract, allowing the Contractor, through the tender process to:

- Finalise the design, based on the reference drawings, specification and site technical assessments (Section B),
- Address the key design principles identified under this section,
- Address specific site requirements regarding the Field of Play or Parkland design specifications.

9.2 Specific Design Requirements

Specific design requirements for this project that must be included within the Project include:

- Alignment of levels with the facility development

9.3 Tendering Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
Site Specific Requirements	Describe contractors solution to site specific requirements	13
	Reference designs	13

10. REFERENCE DESIGNS

The reference drawings included within this Contract Tender include:

- Sporteng Drawing Schedule – Only for the FIELD #1 (Synthetic fields)
- SE_11963_F320 – has drawings of the synthetic field drainage, this or other options will be considered.
- SE_11963_F700 – Fence typical elevation must have NO step down at the gates for either pedestrians or vehicles and must be DDA compliant

The Field of Play dimensions shall be within the reference drawings design and include:

- 105m by 68m playing surface with 3m run-off and coaches boxes inserted into fence line as shown on Drawings SE_11963_F201

11. DRAINAGE STRATEGY PRINCIPLES

11.1 Introduction

The design strategy principles must consider and include:

- Reduction of top-soil, earthworks being taken off-site, to reduce the cost of the project,
- Pavement design must be for a minimum of 30 years,
- Optimisation of circular economy at all stages of design, procurement, management and end of life,
- Reduction of impact on the environmental footprint by considering the impact of global produced and transportation of the synthetic system components,

11.2 Drainage Strategy

The Principal is requiring that the drainage strategy addresses the following:

- 1 in 20 year ARI event
- Vertical drainage strategy due to the inability of the stormwater pipework to cope immediately with this ARI rain event,
- The depth of the vertical drainage strategy needs to be proven through calculations to demonstrate its ability to address the ARI rain event,
- Additional holes in the carpet to increase porosity through the Turf system by 30%,
- All drainage must be sub-surface drainage and not above ground on the Field of Play.

11.3 Tendering Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
Drainage strategy	As part of the overall site specific design	13

12. PAVEMENT PROFILE

12.1 Introduction

The pavement profile must meet the drainage needs for the site, be constructed to last at least 30 years and reflect the design intent on the drawings

12.2 Tendering Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
Specific site design solutions	Design construction solutions	13.2

13. CERTIFICATION OF DESIGN FINALISATION

13.1 Introduction

The Design Finalisation of the project must be signed off by a qualified and certified engineer, to demonstrate that this meets the request of the Contract.

13.2 Specific Drawings

The following Design Finalisation drawings are required as part of the Tender Process:

- SE_11963_F000 Drawing Set (50%)

The following Design Finalisation drawings are required post award of the Contract and must provide the Client with seven (7) days notice prior to any needs by the Contractor.

13.3 Tendering Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
Qualified engineer	Name/Organisation who will complete the final drawings	13.5
	Name/Organisation and qualification of the engineer if outside of your company	13.5
Specification Drawings	Specific drawings requested	13

14. CONSTRUCTION & INSTALLATION

14.1 Methodology

The Contractor must provide at Tender Stage and an updated version 7 days prior to the start of the project that clearly articulates the detailed methodology that will be employed for this project. The Methodology format should as a minimum be addressed within the Tender Schedules, by addressing:

- Supply chain logistics,
- Site establishment,
- Civil works,
- Recycling of sports surface system,
- Sports surface installation,
- Critical Hold & Witness points,
- Handover and defects liability period.

14.2 Project Management

The Contractor must provide as part of the Tender stage and an updated version 7 days post award, for the project a detailed project plan, with details for each task:

- Name of task,
- Timeline,
- Responsibility,
- Critical hold points, verification posts, witness points,
- Certification points,
- Wet days,
- Public holiday dates.

14.3 Tendering Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
Methodology	Detailed methodology for project explained	14.1, 15
Project Management	Project Management timelines	14.2
Estimated Timelines	Summary of estimated dates	14.3



SECTION C: SPORTS SURFACE SPECIFICATION

Section C Structure

- 15. Synthetic sports performance surface
 - Football Turf
- 16. Maintenance of performance surface
- 17. Warranties and guarantees
- 18. Recycling of sports system

15. SPORTS PERFORMANCE SURFACE

15.1 General

The Contractor must provide a synthetic sports system that is fit for purpose and can meet the needs of this specification and specifically to achieve the performance scope, align with the type and intensity of usage as well as the special design considerations.

The design of the Field of Play must ensure that the field achieves initial certification to the International Federation's synthetic surfaces standards for, Football – FIFA Quality

15.2 Intensity of Usage

The fields will be used for casual and organised sport during the day and evening 52 weeks per year. It is a requirement that the durability needs of the use are reflected in the sports surface system being offered and installed. If the surface is found not to be able to meet these requirements of 60 hours per week, with the maintenance that the Contractor will be responsible for the 100% replacement turf will be required at **no cost** to the Principal in the first 5 years of the surface life.

15.3 Design Specification

The Principal's desire is to have a synthetic Football Turf field that will allow the community use of the field against the governing body of sport performance criteria. The identified sports performance standards is/are detailed below.

The site Reference Design is provided as part of this Contract and should be used with this Specification to achieve the actual markings, sizes and design considerations. The following sports standards and design considerations should be addressed.

Any aspects that this Specification has missed from the International Federation standards, must be included and are the Tenderer's responsibility to do so.

15.4 Field of Play Design Standards

Sport 1	Football/ Soccer
Type of play	11-a-side, 5-a-side, 7-a-side, Futsal
Level of play	NPL, community competition, casual usage, training, summer/casual competition
Field size	- 105m x 68m with 3m run-off on all 4 sides within coach box/ interchange box integrated into fence line
Synthetic field scope	The synthetic Football Turf will be to a FIFA Quality standards with additional performance standards as listed in this Specification.
Ref. docs.	Football – 11-a-side and mini-sided games to be certified to FIFA Quality mark and in accordance with the FIFA Quality Programme for Football Turf: Handbook of Requirements, https://inside.fifa.com/innovation/standards/football-turf/new-edition-of-fifa-test-manual
Rules of Game/ Guidelines	- FIFA Laws of the Game https://digitalhub.fifa.com/m/5371a6dcc42fbb44/original/d6g1medsi8jrrd3e4imp-pdf.pdf - Football NSW - (http://www.footballfacilities.com.au/wp-content/uploads/2015/11/Field-Markings-and-Equipment.pdf) - NPL Guidelines NSW - Rules of Game - NSW

Coaches/ Interchange Guidelines	The technical Area must be aligned to the field of play and as reproduced below (source: FNSW Field Markings & Equipment guide, Diagram 6). <i>Diagram 6 - Technical Area line marking and dimensions</i> The run-off area has been identified on the diagram and should meet the requirements of the sports code. As a minimum for this project the run-off area shall be 5m and the design of the coach's boxes must include them set back into the fence line.
Min Height of Yarn	50mmn
Other	

15.5 Additional Design Objectives

15.5.1 Line marking

The following line markings are required:

- the inlaid (permanent) line marking to be tufted or woven in at the manufacturing stage,
- any seams to be sewn or glued with appropriate adhesive that ensures that the seams do not part for the length of the fields life, any seams that come apart or lose from the backing will need to be reglued at no cost to the Principal. The width of the body must be at least 200mm on either side of the carpet seams.

15.5.2 Additional performance requests

The following additional performance requirements need to be achieved by the proposed synthetic surface system. In addition, this specification has identified additional requirements on top of these performance standards. Prior to installation, the Tenderer must be able to provide evidence (in the form of the International Federation Product Test Certificate) that the synthetic sports turf system has been shown to comply with the product test requirements outlined in the sports quality manual (e.g. FIFA 2024 Quality Manual and those of the other sports listed below).

15.5.3 Durability and intensity of usage

The field will be used by the community and schools during the day and general public, local groups and sporting clubs, competitive teams for training and competition for approximately 60 hours per week. The synthetic surface solution should be proposed with this in mind, and have warranties that demonstrate this.

The design, durability of the turf system, maintenance regime and warrantee conditions need to reflect and incorporate the intensity of usage and the special areas around the field of play, including, but not limited to:

- Football (Soccer) field - Goal mouths, penalty area, corner spots, sideline refs. running strip,
- Gate access areas – to have a reinforcement for the six (6) pedestrian gates that enter the field measuring 2m deep and 2m wide to reinforce the high-wear areas,
- Coach interchange box areas.

- Outside the six (6) pedestrian fence entrances, a reinforced grate or movable matting system shall be imbedded into the path and laid in a manner to collect both the rubber infill coming off the field and to stop mud going onto the field. This inserted grate shall act as a 'cattle gate' for training shoes and shall be 2m from the gate and fence line in all directions. It shall be drained so no pooling of water,
- The durability of the system will, in part be measured by the results of the Lisport and LisportXL Laboratory reports. The system must provide reports to both the FIFA 2015 Quality Manual and to demonstrate their systems additional durability performance to the FIFA 2012 Manual Laboratory Reports.

The Lisport test (FIFA Quality manual 2012) for the FIFA Quality field standard of this synthetic sports grass system must be independently tested by an approved test institute at a minimum of 200,200 Lisport cycles and preferably higher. The warranties offered must also reflect this.

The warrantee's and management guarantees are reflected of best practice and also reflection of industry recent experiences over the past two years where the risk to Council aims to be mitigated.

15.5.4 Shockpad

There must be a shockpad in the proposed system and it is expected that the shockpad will have a Manufacturer Warranty for **at least** 20 years with additional warrantee being rewarded with additional evaluation points. The shockpad proposed as part of this Tender must be the same as the one in the Laboratory Test Report otherwise a score of zero will be awarded. The shockpad **Manufacturer Warranty** must be able to meet the type of usage both in the number of hours (e.g. 60 hours p.w.) and with nominated shoes.

The shockpad must be able to be recycled after its life expectancy in full.

15.5.5 Infill

The performance infill must combine both sand and performance infill. The sand must allow easy drainage in the rain event identified and achieve a porosity level so that there is zero ponding on the surface during and immediately post the rain event.

The infill requested must be organic and have been tested within the system proposed. The Principal is keen to have an infill that is durable and is resistant to floating in heavy rains.

The Principal is keen to appreciate the anticipated breakdown of the organic infill and level of remediation and/or replacement needed at the end of each year, based on the specified hours of usage. The Tenderer will be required to replace and/or top-up any infill levels on a monthly basis to the maximum level required for the first 12 months after handover, at no cost to the Principal.

The specification will consider the expected costs of infill replacement as part of the Tender Evaluation. The RFT Schedules have been constructed to seek the following requirements:

- The expected 'top-up' levels needed after key specified years (years 2-5),
- The warranty for life expectancy for the infill,
- The cost of replacement per tonne.

The Contractor must provide to the Superintendent receipts for the supply of the material which relates back to exactly the tendered information which should also align with the International Federation Laboratory Report that has to be submitted.

At the end of the first 12 months the contractor is required to provide the Principal with adequate infill to keep the infill levels to the required depth in the field. To be clear and avoid any ambiguities the contractor **MUST** price and provide all infill expected for the first two years of use after handover.

The Contractor should ensure the following is achieved during the installation of the performance surface:

- All bags are sealed so no spillage,
- All infill is clean and not contaminated with any other particles or components,
- Under each infill bag there is a non-perish layer so that no infill can migrate into the soil or across the landscape,

- That the performance infill, when installed should be laid 3mm above the normal levels to allow for settlement. In the first 12 months this level should be monitored across the fields to ensure that the level stays at the maximum height within the carpet,
- At the end of the 12 months, 2 tonnes of infill should be provided to the Principal at no cost to continue to keep the levels high,
- The 12-month Dilapidation Report should demonstrate across 100 inspection levels that the infill levels are at least to the minimum level (e.g., 15mm) of free yarn. Any gaps across the field need to be filled prior to Dilapidation sign-off.

15.5.6 Porosity

The porosity of the system must meet at least 500ml/hr and the requirements of the International Federation, which ever is greater. For this project the Principal is requesting that the carpet has an additional porosity to ensure drainage allows for total porosity during a heavy rain event to ensure that the organic infill does not float. This should include additional holes (at least 30% more) in the carpet backing to ensure additional porosity can be achieved. Any loss of organic infill due to poor drainage through the carpet will result in a warranty claim against the contractor. It is expected that the carpet will have at least 30% the number of drainage holes than the standard approach to assist with this. This needs to be confirmed at the Tender Submission Stage.

If a drainage cell is used as part of the strategy it needs to be Heavy Duty and not stored in sunlight before coming to site. Any U.V degeneration to the drainage cell in the first 5 years (e.g. breaking/cracking) will be replaced at no cost to the Principal.

15.6 Safety Components of the System

The infills (if rubber) and yarn should be tested against the following parameters:

- EN 71.3 (2013) Safety of Toys – Part 3 Mitigation of Certain Elements able 2, Category III (Scraped-off materials), or the US equivalent standard for heavy metals, ASTM F3188 – 16.

EN71-3, Table 2 Category III Standards Table	
Category III Migration limit	mg/kg
Aluminium	70,000
Antimony	560
Arsenic	47
Barium	18,750
Boron	15,000
Cadmium	17
Chromium (III)	460
Chromium (VI)	0,2
Cobalt	130
Copper	7,700
Lead	160
Manganese	15,000
Mercury	94
Nickel	930
Selenium	460
Strontium	56,000
Tin	180,000
Organic tin	12
Zinc	46,000

15.7 Tendering Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
Intensity of Usage	Lisport XL or Lisport (2012) Test results over 200,000 cycles	10
Field of Play Standards	Certification of product by IF approved lab	9.7, 11
Surface system components	Quality of system offering	10,13.3

16. MAINTENANCE OF PERFORMANCE SURFACE

16.1 Introduction and Scope of Works

The Contractor is responsible for the ongoing maintenance in accordance with that specified within this section and any other actions needed to extend the life of the performance surface, associated equipment and surrounds of this field of play as documented within.

The maintenance scope aims that are required for the synthetic surface contract includes:

- 1) Ensure that the field of play achieves its expected life expectancy by:
 - Providing planned routine and proactive maintenance to optimise the synthetic surface life expectancy,
 - Continuous conditional monitoring, identification of any system failures or indications of system weakness (e.g. seams splitting) and rectifying issues early so that they do NOT develop into major problems. If minor problems are allowed to develop into major problems or system failings, the Contractor will be solely responsible for rectifying the problem at no cost to the Principal,
 - Ensuring that the system components are managed and used as specified, including the infill levels,
 - Management of the fields maintenance to ensure that all warranty obligations are met from the manufacturers; and
 - Provide a maintenance manual that encompasses the manufacturers obligations, the specified quality assurance expectations of this contract with the Contractors processes needed to manage the maintenance program.
- 2) Maintains the performance of surface, ensuring that is fit for purpose and continues to meet the certified standards, through:
 - Maintenance aligned to the International Federation's guidance at a level to gain re-certification,
 - Alignment of maintenance protocols to the manufacturers guidance,
 - Regular testing of key attributes of performance including ball roll, infill levels and surface hardness; and
 - Ensure even distribution of performance infill across the field of play.
- 3) Replace and make good any non-conformances or system failures:
 - Replace and make good any non-conformances or failures,
 - Manage the infill to ensure even levels across the field of play and at a level that is to the manufacturer's standards and guidance; and
 - Provide monitoring and reporting to the client to study field obligations.
- 4) Monitoring, assessment and review to provide insights to ensure proactive management of the field:
 - Conduct an initial assessment of the facility condition to ensure a transparent and open approach to deliverables and status of the facility prior to the start of the contract,
 - Program specified monitoring reports and proof of work conducted,
 - Provide bi-monthly insight reports to share the performance of the field and facility with the Principal,
 - Conduct an annual assessment that identifies the condition of the facilities and measures the impact on the performance of the field and the expected life expectancy of the surface,
 - Identify any remediation annually to maximise the probability of the surface reaching its life expectancy; and
 - Conduct a final assessment at the end of the contract, completing any remediation to allow hand over of the fields, with due wear and tear.

16.2 Planned and Routine Maintenance Obligations Field Surfaces

16.2.1 Obligations

The Contractor is to develop an annual maintenance manual which shall detail the following aspects:

- Roles and responsibilities between both partners to reflect this specification,
- Program to meet the needs of the field, reflecting best practice, the synthetic system components, warranty requirements, usage projections and specified requirements,
- Contact details of all parties; and
- Reporting, roles and outputs as specified.

The annual program shall identify the routine requirements and the outcomes from each program task, when the task will be completed and whether the maintenance task is a minor or major routine task. The manual shall meet the needs of all the stated International Federations and specifically the FIFA maintenance recommendations ([Handbook of Requirements](#)) and in accordance with [FIFA's education guide on maintenance](#) (video).

The maintenance manual shall demonstrate how the Contractor will meet the requirements of the International Federation Quality Program and as a minimum detail the maintenance requirements and procedures for:

- Ensuring the yarn fibres stay upright,
- Keeping the surfaces clean,
- Control of infill levels,
- Algae growth and treatment,
- Cleaning techniques and equipment,
- Maintenance inspections and schedule,
- Repair process after vandalism,
- Warranty provisions.

For programming the maintenance, the field shall be in use throughout most days, and this should be considered when programming the maintenance. Maintenance activities shall be scheduled to account for training and match play. The Principal will provide the training/play schedule so that maintenance can be programmed.

The Program shall ensure that it will be approved by the manufacturer as not impacting the warrantee negatively.

16.2.2 Minimum expectations and responsibilities

The Contractor is requested to provide a price for the maintenance for the fields for a **period of TBC :**

16.2.2.1 Contractor maintenance approach

- The Contractor to visit every 4 weeks to brush and maintain the field,
- Provide the Principal with guidance of what they need to do in-between each visit,
- The Contractor to visit at least monthly and provide an independent brush of the fields and in addition, any other minor maintenance tasks scheduled (Contractor to define) and then produce a report on the condition of the field and any rectification needed above the minor maintenance that would be conducted at that visit. As the Principal will be able to do little maintenance work, the Contractor shall ensure that their visits stated are adequate; and
- The report shall be in accordance with the below specification.

The Contractor should provide for infill top up that would be expected annually for their infill options aligned to this approach option.

16.3 Maintenance Scope for 3G Field

16.3.1 Pre-maintenance inspection

The Contractor shall walk the field prior to any maintenance being conducted at each visit, recording the findings from a detailed inspection of the sports surfaces, equipment and infrastructure identifying any safety hazards, checking field levels and key performance attributes, including:

- Special attention to the most heavily used field of play areas, such as gate entrances, goal mouths, corner kick areas, coaches boxes,
- Look for foreign debris or contamination from leaves, needles, rubbish, dog faeces etc,

- Check seams and joints to ensure that any open joints are not wider than 10mm or longer than 30mm in length,
- Identify any trip hazards on the field of play or surrounding areas,
- At field marking line cross overs for joint surety,
- Deteriorating grass fibre, including flattening, fibrillation or tough lock issues,
- Identification of infill migration or compaction that has reduced the level of infill below the minimum acceptable levels; and
- Visual or excess wear concerns, drainage concerns, performance concerns, etc. and record them on the visitation board.

16.3.2 Cleanliness of playing field

The Contractor shall keep the field surface free from both debris (e.g. rubbish, food, drink bottles, chewing gum etc.) and detritus (e.g. leaves, tree blossom, pine needles, dog faeces etc.) to ensure a safe and clean field for people to participate in their activity on.

Use a mechanical solution to remove organic material within the top 20mm of the surface on a regular basis, recognising that the programming of this action may vary during season, through seasonal usage and age of the field and should be reflected in the Annual Maintenance Program.

16.3.3 Grooming

The Contractor shall groom the field of play at least every 4 weeks through a vigorous brushing in a manner to counter any infill migration across the surface to ensure that:

- Infill levels are equal across the field of play and achieve the minimum levels identified in the International Federation Certification Laboratory report,
- No use of metal or rubber drag mats,
- Removal of the vast majority of dirty and contaminated infill; and
- Untangled matted and compacted fibres.

The grooming as the field ages should also include the use of rotary brushes in a horizontal action that stimulates the fibres to stand upright and should be conducted across the field in at least two directions and not vertically lengthways.

The Contractor shall provide a deep clean that will include a decompaction of the infill within the field or certain parts of the field on a regular basis to ensure no decompaction that would be detrimental to the life expectancy, or that would have an impact on the performance of the field or part thereof. The high wear areas should be programmed more regularly, including, entry gates, football goal areas, coaches' boxes, penalty sports, and corner spots.

16.3.4 Infill levels

The infill levels across the field must be kept within the minimum levels of the fields stated range by the manufacturer.

Post installation, the Contractor shall ensure that the fields infill is at least 3mm above the maximum infill levels to allow between 3mm and 6mm settlement in the first two months.

The infill used for topping up the infill shall be the same as originally provided by the manufacturer. If this is not available, then the infill must be within the parameters of the original specification with regard to size, performance, health criteria, and safety parameters. A certificate of conformance must be provided when any infill is purchased for topping up the infill.

16.3.5 Stain removal

The Contractor is responsible for the removal of any stains in accordance with the manufacturer's directions and shall use appropriate detergents that do not damage the fibres, infill or carpet base.

Chewing gum should be removed using a proprietary aerosol freezing product that is approved by the manufacturer to ensure no damage to the synthetic system.

16.3.6 Weeds

Weeds are required to be handpicked from the synthetic sports surface to ensure that the root zone is removed in full. If weedkiller is used then it should be approved by the manufacturer to ensure no damage to the system and also does not impact on the warrantee of any aspect of the synthetic surface. Oil based weedkillers are not allowed to be used. Pesticides and weedkilling agents should be pH neutral and approved by the Principal before use.

16.3.7 Temporary lines

Temporary lines may be used to complement the permanent lines of the field. The propriety products used must be approved by the manufacturer to ensure that there is not damage to any part of the synthetic system and so that its use does not negate the system warrantee.

The temporary line solution must be able to be washed off at the timelines that the client indicates (e.g. day, week, month, season etc.).

16.3.8 Moss and algae

The contractor shall identify key parts of the field that would need to have a spray of moss-killer and algicide annually or more frequently if directed. The chemicals used must be approved by the manufacturer to ensure no damage to the synthetic surface or part of the system.

16.3.9 End of season remediation and works

At the end of the season (winter and summer turn over) the Contractor shall conduct the following works:

- Remove the goal posts and place them as guided by the Principal,
- Secure the goal post sleeve with the appropriate capping, and
- Any remediation as agreed with the Principal

16.4 Training

The Contractor must provide the training program that will be used in conjunction with the Maintenance and Operational Manual to ensure that the staff will be trained to be competent to maintain the field.

As part of the International Federation Field Certification, the maintenance regime provided by the Contractor must be available for inspection by the Accredited Technical Institute during field testing. In addition, this should include the full package of maintenance training provided, equipment used, and the maintenance testing equipment supplied.

16.5 Remediation

The annual remediation needs to address at least all of the following:

- Independent assessment – by third party once remediation is conducted to measure, safety of field, performance characteristics (e.g. infill levels, flatness of turf, seam surety, playability etc. life expectancy and any remediation needed),
- Infill levels topped-up – to at least the maximum range in accordance with the manufacturers recommendations,
- Repairs – any needed,
- Deep clean; and
- Removal/replacement of any cricket wickets.

16.6 Monitoring and Reporting

The Contractor is responsible for reporting to the Principal the status and condition of the field and with recommendations on how to improve and extend its life, which should as a minimum include:

16.6.1 Operational record of each visit

The Contractor must provide a report at the end of each maintenance visit which stipulates:

- The condition of the field, infrastructure and equipment as detailed within this specification when they arrived,
- Detail of maintenance work carried out on visit – compared to that programmed; and
- Any issues, system failures that were rectified or need to be rectified.

16.6.2 Bi-monthly report

The Contractor must provide a report at the end of each bi-monthly visit which stipulates:

- The condition of the field, infrastructure and equipment as detailed within this specification when they arrived,
- Any outstanding issues from previous reports,
- Detail of maintenance work carried out on visit – compared to that programmed,
- Recommendations for any rectifications needed and why; and
- Impacts of rectifications if not followed.

The report must be signed by the Principal's Representative as being accurate and detail what will be committed to from the recommendations and returned to the Contractor prior to their next visit. The Principal is aware that if the recommendations are not followed for rectification or remedial action followed then they may invalid their warranty. This report template is attached.

16.6.3 Annual assessment

The Contractor must provide an Annual Maintenance Assessment Report at the end of each 12-month anniversary of the installation to the Principal which stipulates:

- The condition of the field on the day of the Assessment, with photo evidence,
- Any outstanding issues from previous reports (bi-monthly and annually),
- Assessment of field in accordance with FIFA Quality Manual Handbook of Requirements for Football Turf, reviewing the key aspects that effect performance, including:
 - Wear and tear
 - Durability of yarn and identification of any fibrillation
 - Flatness of yarn – especially in key areas
 - Disbursement of infill in high wear areas with no excessive uneven distribution infill, difference in height between lowest and highest spot should not exceed 10mm
 - No looped piles
 - Exposed goal or flag sockets
 - Failed or excessively open joints (greater than 3mm)
 - Safety aspects of field
 - Hazards within whole field of play,
- Comparison from previous year's Annual Maintenance Assessment Report and suggested impact on life expectancy,
- Review of Maintenance Log and Manual updates,
- Recommendations for any rectifications needed and why; and
- Impacts of rectifications if not followed.

The report must be presented to the Principal's Representative within 2 weeks of the annual Installation Anniversary.

16.7 Tendering Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
Maintenance offering	Described Maintenance offering	12

17. WARRANTIES AND GUARANTEES

17.1 General

The Principal is keen to mitigate risks associated with any inherent faults associated with the proposed or tendered system being offered. The Principal is requiring that the Tenderer provides a Manufacturers Guarantee that indemnifies the Principal against any faults that are known by the manufacturer at the time of the Tender.

The retesting of the system to full certification after year 2 or 3 is the Tenderers' responsibility, as they will also be responsible from the maintenance. If the system fails, the Tenderer must rectify the system to ensure it passes recertification at no cost to the Principal.

17.2 Warranties Scope

The Contractor shall provide a minimum 5-year Manufacturer Warranty in favour of the Principal warranting:

- Performance outcomes to recertify the system to the International Federation standards identified,
- The colouring and performance of the infill so ensure that it is predominantly the same colour and consistency as when installed,
- Any faults due to poor workmanship in the manufacture and installation of the shockpad and synthetic grass as well as the drainage.
- Colouring of the yarn and no U.V breakage of tips (measured after 5 years being within 3mm of original length of the yarn).

Failure to do so will result in the Warranty being activated to repair and/or replace any aspect of the synthetic turf system to ensure that it passes the subsequent test. The Warranty must have the scope to cover this aspect and the intense hours of use identified. The Contractor will have responsibility for the maintenance for that period.

The Warranty required will be expected against the following aspects. The Principal's preference, which is reflected in the evaluation criteria for longer guarantees. The following are identified are the Principal required outcomes to be included in the Warranty.

- Yarn – 5 years
- Shockpad – 20 years (or less if already installed)
- Drainage – 5 years (or less if already installed)
- Overall system – 5 years
- A minimum of 60 hours per week usage

The Tenderer must include the detailed Warranties are part of their submission, and failure to do so may result in the Tender being non-conforming if they do not meet these criteria. The synthetic surface price, will allow for exploration of the Whole of Life costs (WOL) which includes the renewal costs which will be based on the Warranty periods identified in the RFT Schedules.

17.3 Testing and Certification by Accredited Test Institute

The Accredited Test Institute must:

- Be independently owned entities with no legal links (same for service contracts) with any manufacturer or other industry-based entity,
- Have at least one accredited technician within their organisation to the International Federation that the sports standards are aligned with; and
- Have a current contract with the International Federation that the sport is aligned with.

The Superintendent Representative is to be advised when testing and certification is to be undertaken such that they can witness, then process as necessary.

Testing and Certification must occur within four (4) weeks of pitch completion or at a period agreed by both parties that allows ample time to settle in, in accordance with the standards.

17.4 Tendering Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
Warranties	Detailed warranties for each system component	11



SECTION D: ANCILLARY

Section D Structure

- 19. Sports Lighting
- 20. Intelligent Play
- 21. Fencing & Netting
- 22. Sports & Ancillary Equipment

18. SPORTS LIGHTING

18.1 General

The Contractor shall provide a lighting system that meets the needs of this Specification and that of the sport, which is best summarised as:

- 6 No. Light Pools – xxm in height,
- LED lights for each pole to meet 50/100/200 average lux lights across the whole field,
- Maintenance of the lights at XXX hours of play.

18.2 Scope: Australian Standards and Sports Overlay

The planning, design and layout of floodlighting infrastructure is critical to ensure the required uniformity of illumination, to minimise glare and obstruction to participants and play and to minimise the obtrusive effects of outdoor lighting.

The lighting for the sports field/s must comply with Australian Standards:

- AS 2560.1 (2021) Sports Lighting Part 1: General Principles,
- AS 2560.2 (2021) Sports Lighting Part 1: Sports Lighting,
- AS 2560.2.3 (2021) Specific Applications – Lighting for Football (All codes); and
- AS 4282 (2019) Control of Obtrusive Effects of Outdoor Lights.

In addition, the lights must reflect the sports needs and reflect the stated guidance from the Victorian Governments “Community Sporting Facility Lighting Guide for Australian Rules football, Football (Soccer) and Netball”.

- **Lighting for Football codes of XXXXXXXXXXXXXx:**

The Principal requires options for both 50 lux and 100 lux settings and also a 100 lux setting for training and a 200 lux setting for competition. The contractor shall present options to have the lights controlled from a control box attached to a light pole, from a control box located in the nearby building and an option to operate the lights remotely.

The Contractor shall confirm the design recommendation with a structural engineer in accordance with the geotechnical report, which will either be acceptable or may need to be modified to suit the site.

The Contractor is to ensure that the removal of existing lighting to facilitate the new synthetic pitch does not adversely affect the playing conditions of the adjacent existing courts that are to remain.

The tender submission should provide the Principal with a Whole of Life costings assuming that the lights will be used for:

- 30 hours a week for 30 weeks a year on 100 lux; and
- 10 hours a week for 30 weeks a year on 200 lux

The Whole of Life costs should include the following:

- Capital costs – and inclusion of installation,
- Cost of use – for the hours identified above and the cost of any maintenance,
- Cost of replacement – at today’s prices (no CPI) and based on a 10 year life period for this calculation.

18.3 Tendering Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
Lighting Needs	Detailed lighting scope	13.4

19. INTELLIGENT PLAY

19.1 Introduction

The Principal requests that the Contractors price the Intelligent Play System, to allow for the monitoring of usage and maintenance needs of the field of play. The Intelligent Play, smart sports field monitoring system, comprises of two sensors that need to be secured to the light poles, and software that is cloud based and accessible to all stakeholders in real time. This will be considered as a Below the Line Option initially.

The Contractor should allow for the following in their tender bid price to ensure successful installation and activation of the system.

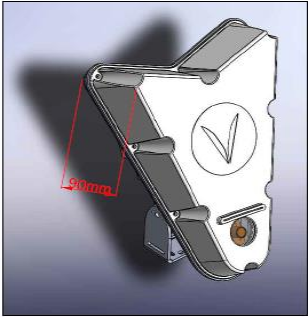
19.2 Purchase

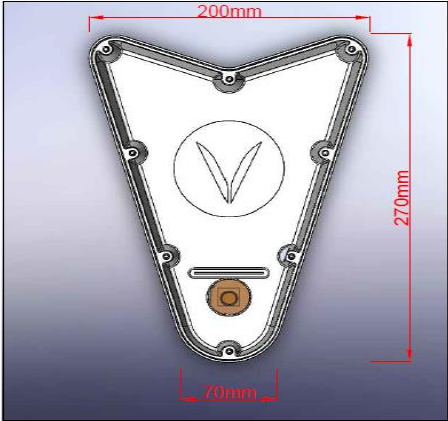
The Intelligent Play, smart sports field monitoring system, is to be purchased from FieldTurf Australia, through their head office with a pre-agreed cost that should be included in the tender price and should include:

- Capital cost – \$28,000+GST per field of play, which includes the full instillation price by others
- Annual license costs for the first five (5) years \$25,000+GST

19.3 Establishment of System

Hardware – the light poles will need to be able to have two sensors securely fitted on them. The dimensions are as follow:





NOTES.

Total weight: 2kg
Total windage: 0.027



Project:
Intelligent Play Sensor

www.intelligent-play.com

Drawing Title:
Sensor Details

Drawn By: (unit): AA	Date: July 2018
Project No: 0000023	Scale: 1:500 @A3
Drawing No: 480001	Status: Installation

19.4 Communication Connections

The sensors will need to have a power source that provides a minimum of 13 watts each. In addition, the communication channels will need to be connected via cellular network.

The software needs to be loaded on the following stakeholder’s hardware (via internet downloads):

- Principal – to allow total visibility of the usage, reporting and benchmarking tools,

- Maintenance company – to receive reports, access data on usage and receive notifications on high wear needs for maintenance priorities,
- Contractor – to manage the maintenance company and provide advice in terms of usage, impact of usage on warranties etc.

The system will be structured to allow key messages and reports to be structured and sent to key stakeholders and the tenderer is responsible for coordinating this. The Tender needs to place on order with the supplier, who will install to the light posts. The Warranty will be provided by Intelligent Play.

19.5 Tendering Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
Intelligent Play	Methodology for installation and training for first 12 months	13.4

20. FENCING & NETTING

20.1 Scope and General

The Principal requires the area around the Field of Play to have a chain link fabric 1.05m fence surrounding it, with pedestrian gates strategically positioned.

20.1.1 Chain link fabric fence scope

The Chain Link Fabric fence shall be designed, scoped, procured and installed in accordance with Australian Standard AS1725.5 (2010) Chain Link Fabric Fencing in [Part 5: Sports Ground Fencing – General requirements.]

The fence shall be designed for a minimum of 20 years life expectancy and the durability of metal and paint coatings should be applied to achieve this.

Type 1: Extra heavy duty fencing shall be constructed with all DN 50 posts and DN 50 rails with heavy duty 3.15mm chain link fabric.

20.1.2 Materials

The following materials and components are identified for this project:

- The nominal height of chain link fabric will be 1050mm,
- The type of post/rail stay will be Class 1 (medium quality) (Appendix B, AS1725.5 - Table B3),
- The pipe-rail to support the chain link fibre will be Type 1: DN 50/60.3 mm OD) pipe rails,
- The wire diameters shall be Heavy Duty (3.15mm), with a 50mm pitch,
- All powder coating shall comply with the requirements of AS4506,
- The lacing wire shall continuously wrap around the upper and lower horizontal posts and pulled tight to ensure rigidity of the chain link fabric,
- Table 3.1 Preferred range of chain link fabric, 1050mm height and wire coating designation/identity code W02Z/SG-PUC or W02Z/SG-FBP,
- The support cables should be extruded plastic-coated (AS1725.5 (Sec 3.6b)),
- The gates shall be designed to be flush with the top of the horizontal post rail and 1300mm wide (pedestrian) and 4m wide for vehicles (AS1725.5 / Appendix G),
- There shall be drop-bolts on all double-leaf gates, with the gates opening away from the field of play onto the path,
- The bottom rail is to finish 100mm above the base ground level.

The High Fence behind each goal will replace the 1.05m fence and shall be 21m long (penalty box) and 4m high.

The posts of the fence must be fixed into a concrete plinth that is 200 mm and at least 200mm thick above the synthetic grass infill levels.

The gates shall open onto a path that is flush with the infill levels, so that there is no stepdown.

20.2 Tendering Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
Fencing – Standard	Product solution and methodology for installation	13.2
Fencing – High level	Product solution and methodology for installation	13.2

21. SPORTS AND ANCILLARY EQUIPMENT

21.1 General

The Contractor is to supply the following sports and ancillary equipment under this contract:

- 1 x number sets of PILA Football Goals – full size with sleeve systems to allow mobility
- 2 number of Player/Coach boxes to sit 11 people
- 0 number of Flags BUT the Contractor Must place sleeves into the synthetic turf for the flags to be installed
- 2 Number Goal Storage Area

21.2 Goals/Posts

The contractor is to supply and install sleeves and removable aluminium Football goal posts at both ends of the main field and also for each of the junior fields. Construction works are to include the provision of appropriate anchoring for the equipment. The goal line must be the same width as that of the posts.

The sleeves in the ground must be designed so that when the goals are not in use, they have a cover that is below the finish level of the field with the grass system on top, flush with the surrounding plating surface. The join between the socket area and surrounding field must be seamless to ensure safety of the field. This cover must be fixed in the grass system. The width of the lines and the goals must be identical and meet all FIFA recommendations.

It is recommended to use the following sleeves and covers **xx**.

21.2.1 Football goalposts

The goalposts required for the field must be toughened, powder coated white Aluminium, with UV resistant nylon netting and meet the following legislation, rules of the game and best practice guides:

- FIFA Rules of the Game
- [AS 4866-1-2007 Playing Field Equipment – Soccer Goals](#)
- ACCC Product Safety Australia / [FFA Goal Safety Guide \(2014\)](#)
- NSW Office of Fair Trading Act 1987
- Australian Government – trade Practices Act 1974 – Consumer Protection Notice No.28 of 2010 Consumer Product Safety Standards – [Movable Soccer Goals](#)
- All goalposts supplied (fixed and/or portable) need to be able to be properly secured and anchored to ensure that they are stable and safe at all times, and in accordance with AS4866.1.

Portable goal posts must therefore be provided with appropriate ballast material to prevent the structure from overbalancing and toppling as required.

- The full-size Goal Posts must be on rear wheels to allow the posts to be moved when needed,
- The field must have socket to place so that when the goal posts are not in use can be covered to ensure safety,
- Portable goalposts must therefore be provided with appropriate ballast material to prevent the structure from overbalancing and toppling.

21.3 Coaches Boxes

21.3.1 General

i.) Football

Supply and install two team shelters/coach's boxes to seat a minimum **of 9-11 people and fitted in accordance with Football NSW Guidelines / Football Victoria NPL guidelines**. The coach's boxes shall be secured on top of a concrete pavement and have the synthetic grass and shockpad covering the concrete. Other performance characterises need to include:

- Powder coated aluminium frame,
- Transparent polycarbonate side panels,
- Bench seat or individual seats for the identified number of players,
- Shelter or roof structure must not encroach within 3m of the playing field out of bounds line.

A warranty of at least 36 months is needed for these coaches boxes to ensure that the polycarbonate does not break, crack and can stand the expected usage, otherwise they will need to be replaced within 28 days of receiving the notice from the Principal at no extra costs to the Principal.

A warranty of at least 36 months is needed for these coaches boxes to ensure that the polycarbonate does not break, crack and can stand the expected usage, and UV conditions in NSW, otherwise they will need to be replaced within 28 days of receiving the notice from the Principal at no extra costs to the Principal.

21.3.2 Concrete pads

Two concrete pavements will be constructed that will form the base for the Coaches Boxes. The dimensions of each pavement must extend 0.5m from both sides greater than the Coaches Box length and by 2.0m wide in front of the box.

The depth of the concrete pavement must be a minimum of at least 200mm to accommodate the Coaches Box and should be 'boxed' to ensure the concrete surety.

The foundation under the concrete must be compacted to ensure there is no subsidence.

The concrete pavement must be reinforced, preferable using F-82 galvanised steel mesh prior to pouring of the concrete.

The concrete shall be N32 standard strength grade complying with the requirements of AS-1397: Specification and Supply of Concrete.

21.3.3 Coaches boxes pavement covering

The concrete pavement shall be covered with a shockpad and grass that is used on the rest of the field.

21.4 Shoe Grate Cleaners

At the edge of the field of play as the gates opening there needs to be a shoe cleaner that significantly reduces all infill from leaving the field of play and reduces the likelihood of mud and soil being brought into the synthetic field. The design should include:

- Be of a size that encapsulates two steps off the field (minimum of 1m by 2m),
- Set into free draining concrete grates,
- Steel grates with brush strips (similar to a [Profigate b55](#) – or similar),
- Anti-slip surface for flat soled shoes and studded boots,
- Depth of 55mm minimum,
- 10mm (min) dirt collection depth,
- Drainage pipe from the grate to ensure no ponding of water.

21.5 Goal Storage Area

The Tenderer shall design and construct a goal storage area that is large enough to cater and store equipment that is used on the field of play. The drawings show the suggested positioning of the storage area.

The storage area shall also have the following characteristics:

- Chain link netting in accordance with AS1725.4-2010 chain link fabric fence and AS1725.5 (Heavy Duty), with chain link fabric over the top to reduce the opportunity for unauthorised access,
- Security of the storage area to include the locks for gates.

The entrance to the goal storage shall open onto the football field.

21.6 Tendering Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
Goal Posts	Product Data Sheet	13.2
Coaches Boxes	Product Data Sheet	13.2
Shoe Grate clean	Product Data Sheet	13.2
Goal Storage area	Design drawings	13.2



SECTION E: PROJECT COMPLETION, HANDOVER AND CERTIFICATION

Section E Structure

- 23. As Constructed Drawings
- 24. Handover Manual
- 25. Defects Liability Period

22. AS-CONSTRUCTED DRAWINGS

22.1 Introduction

The Contractor is to provide to the Principal as-constructed drawings in hard copy and electronic versions for all packages showing all completed works as constructed for each stage or portion of the works formats and be PDF and in CAD format.

The content, accuracy and level of detail must be of standard that would allow any section of the project to be completely rebuilt to the exact same specification as the completed project, purely through these reference 'As-constructed drawings. They should include, but not be limited to:

- Photographic evidence of key specification parts of the project,
- As-executed drawings,
- Detailed survey drawings, including the position of the works relative to a primary survey grid,
- Certified survey drawings, using a Registered Surveyor where required by the Principal.

23. HANDOVER MANUAL

24.1 General

The Contractor shall provide a Handover Manual to the Principal in both hardcopy (PDF) and electronically (Word) as described below, prior to Practical Completion. The objectives of the Manual for the Principal are to:

- Have sufficient detail so that if all of the Principal's staff change during the life expectancy of the project's life, that there is complete Intellectual Property detail available to them,
- Understand the technicalities of the project in detail,
- Appreciate who to contact from the Tenderer, Certification company, Maintenance provider and who to contact if there is a problem,
- Understand their own obligations to the management and maintenance of the field of play; and
- Be able to refer to all management guarantees for the workmanship and system warranties for the life expectancy of the project.

The content and structure of the Handover Manual should include:

The Tenderer is to supply the Principal a Handover Manual within 10 days of completion and prior to the last payment instalment. Payment will be made once the Principal has signed off on the manual meeting the specified requirements. The aim of the Handover Manual is to provide updated information regarding the project and system for future staff who were not involved.

Section	Section Title	Scope Description
1.	Company Contact Details	Details on the following: • General enquiries • Maintenance enquiries • Owner/CEO • Technical Enquiries • Warranty/Guarantees • Certification assessor/s
2.	Project Overview	• Details of award, build dates and project timetable • Detailed scope • Product sheets for grass system, shockpad, infill • Product sheets for drainage (cell or other) • Laboratory Test reports for system and Tender Submission for product • Tender Submission/final methodology statement • Certificate from International Federation • Product sheets – Coaches boxes, goals, post, flags etc. • Lights
3.	As Built Drawings	• Detailed drawings (longs and shorts sections) • Field of Play Design Drawings – signed off and approved by NSO/SSO
4.	Manufacturer Guarantees and Product Warranties	Detailed copies of all Manufacturer Guarantees and Warranties to align with the specification for: • Synthetic playing surface (and components) • Sports equipment • Lights • Fences and netting • Civil Engineering works
5.	Operations and Maintenance Manual	• Specific manual for site (not general) and specific carpet system

Section	Section Title	Scope Description
		• Training program confirmation of staff trained on maintenance responsibilities • Preventative maintenance checklist • Bi-Monthly maintenance management report • Monthly maintenance operational report • Date for annual assessment as specified
6.	Operational Conformance	• Detailed instructions for the safe use, efficient operations of all equipment • Completion of any equipment assessments (e.g. Football NSW Football Goal handover), Certification that equipment meets the Australian Standards and product warranties

24.2 Tenderer Obligations

The Contractor, as part of the Tendering obligations has to complete the following schedules related to this section.

Specification Ref	Description	Schedule Ref
Handover manual	Detailed scope examples	10.3

24. DEFECTS LIABILITY PERIOD

25.1 Introduction

During the Defects Liability Period (DLP), as defined in the Contract, the Contractor shall promptly repair, make-good or replace any defects as directed by the Principal, which are not performing to the specification, as a result of the Contractors default.

The Contractor is not responsible for the repair, make-good replacement of any defect or damage of works resulting from the following causes:

- Vandalism after sight handover to the Principal,
- Improper operation or maintenance of the works, unless it can be shown that the Principal was not 'trained adequately' by the Contractor
- Use of operations of the works outside of the specified requirements



SECTION F: APPENDICES

Section F Structure

- 26. Site Survey Details
- 27. Geotech Investigation Report
- 28. Environmental Assessment
- 29. Tree Protection Report



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