



PROJECT
 KU-RING-GAI COUNCIL RFT9-2021
 STORMWATER MITIGATION
 AND SYNTHETIC SPORTS FIELD
 NORMAN GRIFFITHS OVAL
 DESIGN AND CONSTRUCT

DRAWING TITLE
 SPORTS FIELD PLAN
 SCHEMATIC LAYOUT

LEGEND	
1. 100 Lux LED lighting system	8. 1.2m high black chainmesh fencing
2. Existing pavilion (not shown)	9. 4.0m high retractable textile netting
3. 2.4m high bio-security fence	10. 6.0m high backdrop fencing
4. Sandstone log bleachers	11. FIFA certified synthetic turf surface with cork infill and tufted-in line marking for soccer and small-sided games
5. Concrete paving to circulation paths	12. International standard soccer goals
6. Player access with foot grates	13. Accessible pathway from carpark
7. Player shelters (9 seats)	14. Accessible parking space
	15. Gross pollutant trap
	16. Emergency vehicle access gateway
	17. 200mm high concrete kerb
	18. Outlet from 2.4 megalitre OSD
	19. Tiered sandstone retaining wall
	20. Bio-retention basin
	21. 1.2m high black mesh safety fence
	22. 1.5m wide path to Aquatic Centre
	23. Electronic scoreboard
	24. Provision of rock lined absorption pits/check dams in overland flow path to counteract any potential erosion and to provide collection point for any potential migration of infill material, silt & sediment.
	25. Accessible player access with ramps and foot grate



REVISIONS			
REV	DATE	DESCRIPTION	CHECK
F	24/3/22	CONCEPT	DOV

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APPROVED	DATE
PROJECT No. S22-008	
DRAWING No. 011 REV F	

Notes to be read with reference to Concept drawings prepared by Turf One Pty Ltd.

Note 1.

100 lux LED Lighting System

The lighting design has been shown to comply with the light limiting parameters specified by AS/NSZ4282:2019 for Spill Light, Luminous Intensity, Threshold Increment and Upward Light Ratio.

The luminaires will be mounted on seesaw poles for ease of maintenance.

The illustration shows the light tower lying on the ground prior to erection.



Note 2.

Existing pavilion

Minimal works will be carried out in the vicinity of the existing pavilion. Minor landscaping works will be undertaken to batter from new paving to existing surface levels.

Note 3.

2.4m high bio-security fence

A black powder coated wire mesh will be constructed to prevent encroachment within an ecologically sensitive area.

This fencing will be rail-less like that shown in the illustration.



Note 4.

Sandstone log bleachers

Spectator seating is to be provided along the north eastern side of the field in the form of tiered split-face sandstone logs, with granitic sand pathways at each level. Steps are provided midway along the bleachers for ease of access to the upper levels.



Note 5.

Concrete paving to circulation paths

Concrete will be natural grey with anti-slip broom finish.



Note 6.

Player access with foot grates

Three gateways will be constructed in the 1.2m high black powder coated fence along the north eastern side of the field to provide player access.

Boot cleaning grates will be constructed in the footpath outside each of these gates to trap any infill that may adhere to players' boots.



Note 7.

Player shelters (9 seats)

Player shelters will be provided for each team, each fitted with nine seats in accordance with FNSW guidelines.

(Note the illustration shows a shorter version with only eight seats).



Note 8.

1.2m high black chainmesh fencing.

The fencing will be constructed in accordance with Australian Standard AS 1725.5 Type 2 (Heavy Durability).

The fences will be wired with black polymer coated 50mm x 3.15mm chainmesh fabric.



Note 9.

4.0m high retractable textile netting

Retractable netting will be provided to separate the warm up area at the north eastern end of the field from the main pitch.

The curtain will be 150 ply 100mm mesh polyamide netting, suspended from a galvanised-steel cable and will be able to be drawn back and stored in wire mesh cages at either side of the field.

Lightweight aluminium props will be provided to minimise sagging of the suspension cable when the netting is deployed.



Note 10.
6.0m high backdrop fencing will be erected at each end of the field.
The fencing will comprise 1.2m high black powder-coated chainmesh fencing at the bottom with highly durable 150 ply 100mm mesh polyamide netting, suspended from a galvanised-steel cable attached to the top of the supporting poles.






Note 11.
Synthetic turf with cork infill
The playing surface to be installed at Norman Griffiths Oval will be FieldTurf RGF XM7 60 mm pile height synthetic turf with cork infill.
This product is to be manufactured locally at FieldTurf's tufting plant located in Botany NSW.
FieldTurf RGF XM7 is the latest development of synthetic turf incorporating two different fibres. Resilient monofilament fibres remain erect to provide unsurpassed playability, ball performance and durability, whilst fibrillated fibres, in alternate rows of stitching, fold over on the surface to encapsulate the infill and prevent its displacement.
The installed surface will be tested by an independent and FIFA accredited testing authority to receive certification that it complies with FIFA Quality standard.



Note 12.
International standard soccer goals
International stadium goals with box nets and ground frames will be installed in accordance with FIFA standards.



<p>Note 13. Accessible pathway from carpark An accessible pathway is to be constructed, leading from the carpark to the pathway along the northeastern side of the field. Path gradient is not to exceed 1:20. This pathway intersects the existing pathway on eastern side of the field as shown on drawing 011.</p>	
<p>Note 14. Accessible parking space An accessible parking space is to be provided in the carpark..</p>	
<p>Note 15. Gross pollutant trap An oversized Rocla CDS gross pollutant trap is to be constructed adjacent to the carpark. This facility will treat waters flowing down Quarry Creek trapping both gross pollutants and water-borne sediments. The treatment system has been subjected to DRAINS modelling by Optimal Stormwater and shown to have enough capacity to handle flows generated by 1% AEP storm events.</p>	
<p>Note 16. Emergency vehicle access gateway Access to the field for both emergency and maintenance vehicles is to be provided with a four-metre wide gateway at the centre of the southwestern side of the field. The existing driveway will be extended to the edge of the field to provide safe all-weather access.</p>	
<p>Note 17. 200mm high concrete kerb A 200mm high concrete kerb will be constructed around the entire perimeter of the synthetic surface. The kerb will perform the dual function of minimising the risk of cork migration and providing an additional safeguard of preventing surface water from flowing onto the field during severe localised storm events.</p>	

<p>Note 18. Outlet from 2.4 megalitre OSD The base profile of the sports field will provide on-site detention of storm flows. The OSD will have a design capacity of 2.4 megalitres. This capacity is derived from the void space in deep layers of recycled aggregate to be built up under the playing surface. Out flows from the OSD will be controlled by the size of the orifices in the outlet pits. The system has been subjected to DRAINS modelling by Optimal Stormwater and shown to operate at capacity in the 1% AEP storm event. Storm flows exceeding such an event will be catered for with bypass drainage capacity.</p>	
<p>Note 19. Tiered sandstone retaining wall A tiered sandstone retaining wall will be constructed from slit face sandstone logs along the southwestern end of the field.</p>	
<p>Note 20. Bio-retention basin A portion of all waters flowing out of the on-site detention will be further treated to remove dissolved nutrients by means of a bio-retention basin (rain garden). Water quality flowing downstream from the Norman Griffith Oval will be significantly improved post development.</p>	
<p>Note 21. 1.2m high black mesh safety fence A 1.2m high black powder-coated chainmesh safety fence will be constructed along the edge of the pathway at the southwestern end of the field. This fence will be similar to the fences to be constructed along each side of the field.</p>	
<p>Note 22. 1.5m wide path to Aquatic Centre A path will be constructed at the southwestern corner of the field to provide access to the existing pathway to the Aquatic Centre.</p>	
<p>Note 23. Electronic scoreboard A three-metre-wide by two metre high remote controlled electronic scoreboard will be installed on the south eastern side off the field opposite the bleachers.</p>	