



Sunshine Hills Masterplan drawing number 0015-2013-11000 date 18.08.2013 scale 1:1000 (A3)



AFL/CA Synthetic Turf Program



Background

Why Synthetic Turf?

Drought & Water Restrictions



Water logged grounds



Participation Increases

- Over past 5 years in Victoria:
 - + 7,369 new participants
 - + 230 new teams
- Growth is outstripping venue supply.

Natural Turf Ground = 20-25hrs/wk usage
Synthetic Turf Ground = 60+ hrs/wk usage

Background

Research Project

- In 2007 the University of Ballarat was commissioned to determine if standards could be developed for football and cricket to be played on Artificial Turf.
- Partners involved:
 - AFL, Cricket Australia, Sport & Recreation Victoria, Jardine Lloyd Thompson Trustees (insurer)
- Standards developed to mimic natural turf playability



Development of Standards for the Use of Artificial Turf for Australian Football and Cricket



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School of Human Movement & Sport Sciences, University of Ballarat
Eric Schwarz,
Daniel Webster College, New Hampshire, USA

Our standards have been developed around three key requirements: Performance, Quality & Durability.....

| Characteristic | Test Method | Community Level |
|---------------------------------------|------------------------|--------------------------|
| Critical Fall Height | Uniaxe Impact Tester | 1.2m |
| Hardness | Clegg Impact Tester | 65G - 120G |
| Abrasion -Change in Friction Force | New UB Device | ± 50 |
| Friction -Coefficient of friction | New UB Device | 0.35 - 0.75 |
| Traction Football Studs | Studded Boot Apparatus | 25Nm - 50Nm |
| Traction Cricket Spikes | Studded Boot Apparatus | 15Nm - 25Nm ^a |
| Traction Cricket Cleats | Studded Boot Apparatus | 7Nm - 15Nm ^a |
| Ball Roll Calibrated ball | Inclined Ramp | ±10% ^b |
| Ball Roll Cricket | Inclined Ramp | ±15% ^c |
| Vertical Ball Rebound Calibrated ball | Vertical Rebound Frame | 0.6m – 1.0m |
| Vertical Ball Rebound Cricket | Vertical Rebound Frame | 0.1m – 0.4m |
| Angled Ball Rebound Calibrated ball | Angled Ball Shooter | 45% - 70% |
| Angled Ball Rebound Cricket | Angled Ball Shooter | 35% - 60% |

Footnote:

a: The rotational traction with cricket spikes and cricket cleats will only be undertaken where there is a synthetic field with a natural wicket.

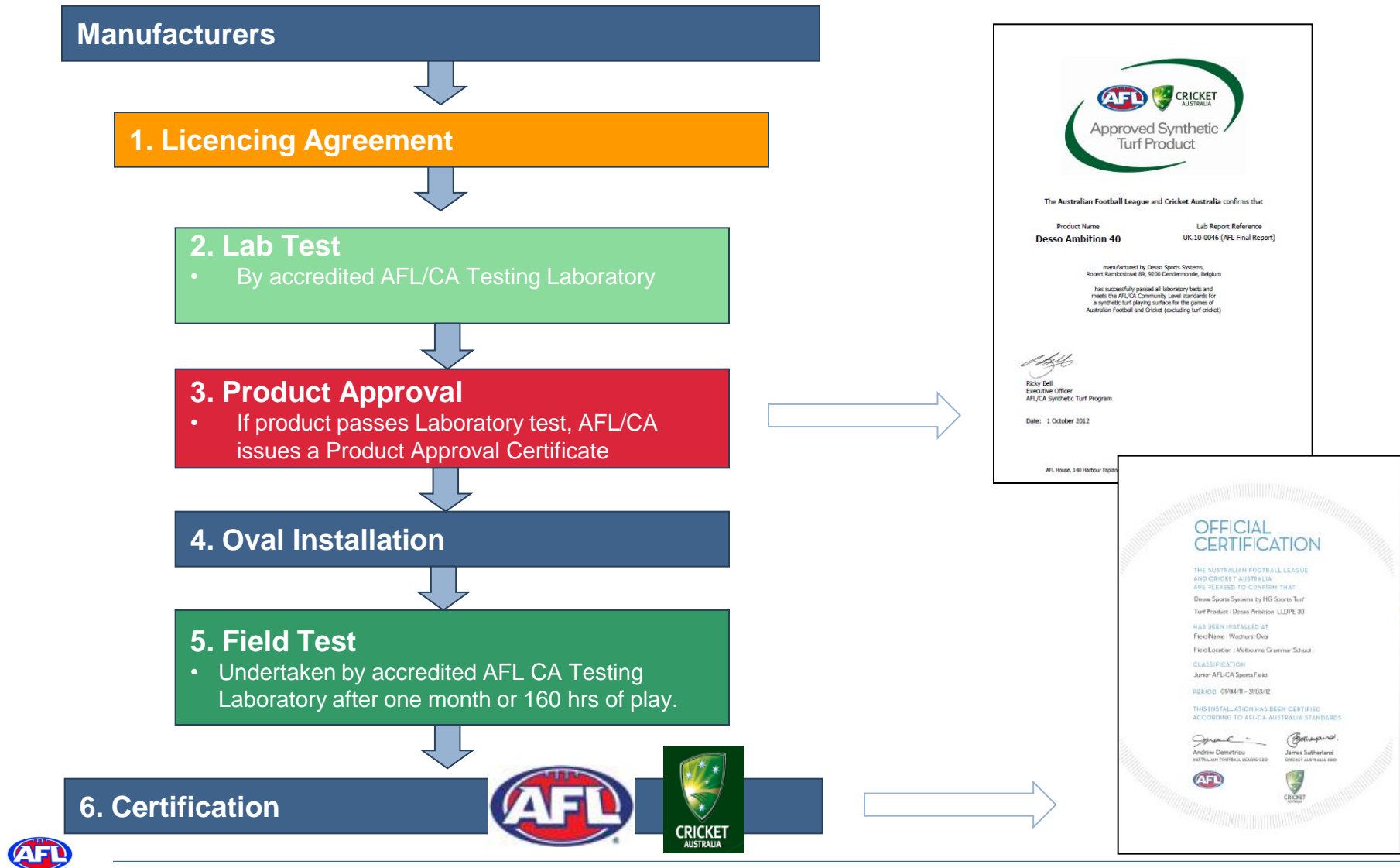
b: This value for football ball roll is based on timing gates and is equivalent to a roll of 12m in the field test.

c: This value for cricket ball roll is based on timing gates and is equivalent to a roll of 15m in the field test.

| QUALITY REQUIREMENTS | | |
|--|-------------------|--|
| Test | Test Method | Requirement |
| Yam and Sub-Layer Mass | AS/NZS 2111.3 | Within 10% of manufacturer's declaration |
| Pile Tufts per Unit Area | AS/NZS 2111.9 | Within 10% of manufacturer's declaration |
| Pile Length | AS2111.6 | Within 5% of manufacturer's declaration |
| Pile weight | Refer Section 3.6 | Within 10% of manufacturer's declaration |
| Tuft Withdrawal Force | AS/NZS 2111.15 | ≥30 Newtons |
| Joint Strength | EN 12228 | ≥1000 N per 100 mm - stitched ≥25 N per 100 mm - bonded |
| Infill Depth | AS 4693.2 | Within 15% of manufacturer's declaration |
| Infill and Unbound Sub-Base - Particle Size | EN 933 | Within 20% of the initially tested value |
| Infill and Unbound Sub-Base - Particle Shape | EN 14955 | Within 20% of the initially tested value |
| Infill and Unbound Sub-Base - Bulk Density | AS 1141-4 | Within 15% of the initially tested value |
| Shockpad Strength | EN 12230 | ≥0.15 MPa |
| Shockpad Thickness | | Within 15% of manufacturer's declaration |

| DURABILITY REQUIREMENTS | | |
|------------------------------|---|---|
| Test | Test Method | Requirement |
| Resistance to Weathering | QUV weatherometer | <50% reduction in tensile strength. |
| Colourfastness to Weathering | Standard greyscale after 5,000 hours of UV exposure | Greyscale rating ≥3 |
| Resistance to Simulated Use | Lisport Wear Test- 10,000 cycles | < 10% fibre loss Visual assessment of fibres |

Licencing Program – supplier endorsement/product approval process



Three Synthetic Turf Manufacturers have been licensed as approved suppliers by the AFL/Cricket Australia.....

Synthetic Turf Manufacturer



THE ULTIMATE
SURFACE EXPERIENCE



Recent Installations

Wadhurst Oval, Melbourne Grammar School



"After years of drought the school could not water the oval during summer...The oval lost grass cover and turned to dust, which is not ideal for cricket. In winter, we would see areas of the oval roped off or the oval closed because the playing surface turned to mud. However this winter, which has been a long and wet winter, the oval has proven itself. ...there is no mud and no oval closures, making it the ideal surface for the School's winter sport Australian Rules Football."

Greg Caldwell, Melbourne Grammar School

Saltwater Reserve, Point Cook

"Using this innovative surface, Wyndham City's sporting community will have access to first class sporting facilities all year round, no matter what the weather brings."

Cr John Menegazzo, City of Wyndham.



Narrabeen Sports High School, Sydney



"AFL in NSW has had its biggest year of participation to date and we're committed to providing excellent infrastructure for communities to participate in Australian football. We value the opportunity to collaborate with schools and local governments through partnerships like this to deliver an innovative sportsfield solution."

Tom Harley, AFL NSW-ACT General Manager