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ready



**Valentine Sports Park - maximising views and solar requirements**  
Orientation dictates shading solution





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**Client** - Football NSW Limited

**Architects** - HBO+EMTB Architects  
Gustavo Thiermann

**Builder** - Taylor Construction Group Pty Ltd

**Project Management** - Aver

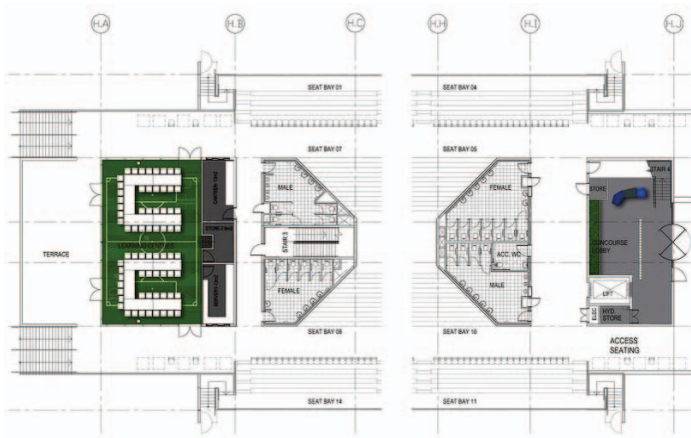
**Structural & Civil Engineering** - Meinhardt

### **Upgraded facilities provide a two way opportunity.**

Valentine Sports Park, has been Football's NSW sporting and administrative headquarters for over 25 years. The complex was named after Charles James Valentine, a long serving treasurer for the NSW Soccer Federation, now known as Football NSW. Charles' financial prowess, included saving the funds from spectators to the matches played there by Manchester United, Everton, Liverpool and Celtic. Thanks to Charles' forward thinking and state government assistance, the high quality 16 million dollar building refurbishment and expansion project which began in early 2014 is now equipped with the latest indoor and outdoor sporting and training facilities. Amenities include B&B style accommodation with large dining and cafe areas for school children, other education groups, state and international corporate conference and function attendees.

“The Design Development team developed the initial concepts so we could integrate the best performing operable venetian product in the market with a purpose designed building.”

Gustavo Thiermann, Architect.



### Redevelopment necessities

Valentine Sports Park is located in Glendale, a north western suburb of Sydney on a 12 hectare site. The complex has easy access to the motorway, reaching Sydney's CBD within 30 minutes.

The increasing number of community groups, participating in football and other sports at the complex, prompted Football NSW to draft a proposal for the expansion of the existing organisation's headquarters and sporting facilities. Other factors driving the proposal was firstly, supporting further sport based social interaction programs aligned with government objectives for better community health and education. Secondly, accommodating a wider cross section of the community including indigenous, athletics with a disability, and new immigrant arrivals. And thirdly, ensuring the site's long term viability by providing better accommodation and venue facilities, that would attract and encourage the corporate sector to use the complex for extended periods of time.

The success of the proposal highlighted the need to upgrade 5 playing areas, replacing two fields with high quality synthetic surfaces and refurbishing the existing headquarters, a 3,000 sqm building for

another use. The primary requirement, the design and construction of 9,000 sqm, 3 level multi-use building to include office headquarters for Football NSW, spectator stadium and indoor amenities, replacing the two small grandstands on the site.

The architectural firm HBO+EMTB was appointed to design this building as the focal point of the sports park. Gustavo Thiermann, who was the principal architect for Sydney projects and a HBO+EMTB director, had a particular interest in the project, based on his long term interest in elite sports. He commented, "having developed the new headquarters for Rugby League Central this gave the firm enough credentials to take such an important role in the redevelopment of Valentine Sports Park, the Home of Football."

### Unattainable ideal orientation

International field orientation and size of the site, meant that the building could not be designed to be placed in the preferred north / south orientation.

*Opposite: Eastern elevation of building before the completion of the synthetic sports field.*

*Top: Initial concept depicting western elevation.*

*Above left: Concourse level plan of new building.*

*Above right: Aerial view of overall site works.*





“This building orientation calls for a high performance facade to stop glare and heat penetrating the building.”

**Gustavo Thiermann, Architect.**

Instead, the concept placed the building between two playing fields, one facing east and the other west.

The northern facade incorporated wide overhangs to protect the extensive glass skin from solar heat gain, with east and west facades integrating shading systems. The building design

completed, it outlined four very distinct areas. The ground level contained the player and officials change rooms. The concourse level integrated 2 spectator grandstands overlooking the east and west fields with study areas; and the office headquarters incorporated into the larger 1,100 sqm upper level.



Top: Architects eastern elevation drawing showing the inclusion of the Specialty Venetian Blinds.

Above: Western elevation showing the base angled support columns within the robust construction of the building.

The CEO of Football NSW, Eddie Moore contributed the core design and brief to create an “all in one” building. Understanding the principal outcome for the building, Gustavo designed the building to be austere and functional, and building materials were chosen for their durability and robustness. Reinforced concrete was specified to be used extensively with angled concrete columns positioned to support the upper floor, avoiding central columns that would obstruct spectator views. Rainwater downpipes would be encapsulated within the boxed concrete columns in the office area with all concrete left unpainted minimising building maintenance costs. On the ground level all non-structural walls between change rooms, showers and toilets were to be built from basic concrete blocks, and unpainted for obvious practical reasons. Clear anodised window frames were chosen to complete the intentionally raw finish of the building.

“This building represents a solid structure for a solid institution. No fancy finishes in this building, as Football NSW is putting the emphasis on the sport itself, being the players, the fields...”

**Gustavo Thiermann, Architect.**

“The blinds and their operation at No. 1 Bligh Street showed how we could have visual ‘access’ to the fields and also manage morning and afternoon sun.”

**Eddie Moore, CEO Football NSW.**

### Why Horiso

Gustavo invited Horiso’s National Specifier, Greg Petterson, with whom he remained in contact, to present at an introductory meeting the range of Horiso Shading and Control Systems. Gustavo believed the Specialty Venetian Blinds would be ideal for the 95%,



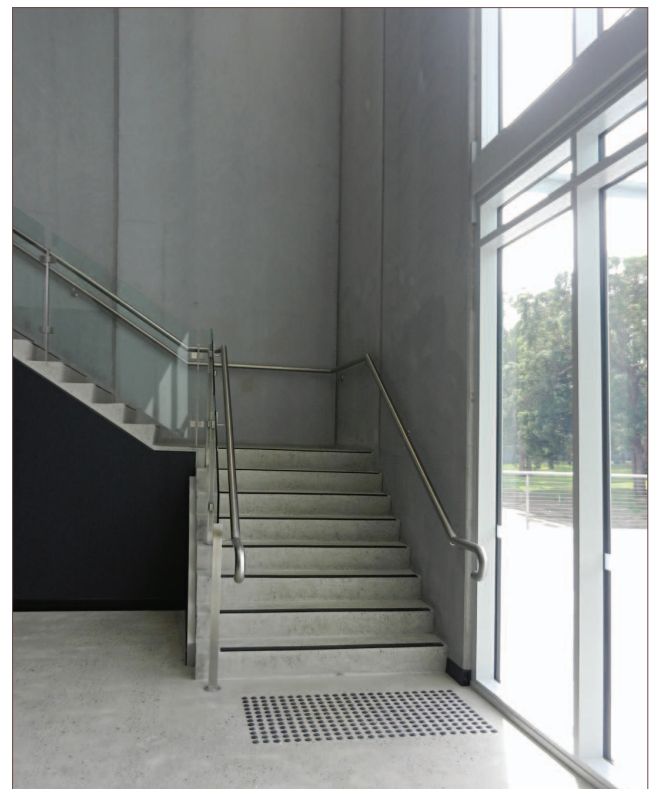
level 2 glazed areas of the building and was keen to recommend the Horiso Shading System for a number of reasons. The quality, performance and longevity of the system were vital from an architectural point of view and to the integrity of the overall sports park project.

At a follow-up meeting at No.1 Bligh Street, Greg Petterson and Neil Krotzsch; Horiso's Engineering Director; demonstrated the versatility and features of the motorised Horiso Specialty Venetian Blinds installed in the building's multi-storey double facade to Eddie Moore and Gustavo Thiermann. Both were impressed with the tight retraction and operating flexibility of the blinds, particularly as the slats tilted, the views were retained. This was an important factor, specific to the second floor spectator sitting areas overlooking the eastern and western playing fields at the proposed Sports complex.

### Shading product review

Fixed louvres and dark tinted glazing were originally considered by Gustavo, before concept drawings began. Carefully reviewing these options and what their application limitations would be, lead him to understand that without the retraction benefits and tilting capacity of the Horiso Specialty Venetian Blinds, the louvres would significantly reduce the visibility onto the playing fields. Tinted glazing would create an unnatural appearance of the fields and players, and together with the louvres inhibit a clear viewing experience.

Gustavo and Daniel opted for the motorised Specialty Venetian Blinds for the eastern and western facades. Gustavo incorporated into his concept drawings, 22 blinds, 600 mm back from the glazing, with a trafficable walkway to enable easy cleaning access for both the blinds and glazing.



*Top left: Blinds tight retraction optimising spectator views.*

*Top right: Blinds are fixed 600 mm from the glazing on a steel walkway.*

*Above: Low maintenance construction of the new building.*





Sighting colour options, Gustavo decided on Horiso's Bronze 7140 for the slats distinguishing the shading feature look from the widely used RAL 9006 Silver. The bronze colour adding a solid grounding effect for the building on the site.

### Installation variations accommodated

The extended steel walkway construction accommodating the Specialty Venetian Blinds meant that the steel cable terminations and headbox installation had to be altered. A 6 mm thick plate was devised and fixed at points to hold the blind cables, and the headboxes were fixed to specially constructed steel outriggers.

Construction began in early 2014 and the installation of the Specialty Venetian Blind System was finalised in December. Football NSW control

the blinds via remote controllers, while wind sensors installed on both eastern and western elevations will ensure the blinds retract if necessary in windy conditions. The sensor's brightness gauge operates the blinds to control solar glare and heat build up within the building, and to ensure maximum energy savings throughout the year.

[www.horiso.com.au](http://www.horiso.com.au)

Images and content references:  
 Gustavo Thiermann  
 Daniel Abela  
 Eddie Moore  
 HBO + EMTB Architects website.  
 Football NSW Limited website.  
 Taylor Construction Group website.

*Top left: The Specialty Venetian Blinds complement the simple tiling and overall concrete construction.*

*Top right: The outrigger fixing supports the Specialty Venetian Blind system.*

## Valentine Sports Park Environmentally Sustainable Design achievements

- Specialty Venetian Blinds will reduce energy costs of heating and cooling system in main building.
- Artificial turf playing fields will require no watering.
- Solar hot water systems and photovoltaics will significantly add to reducing energy costs.
- Rain water harvesting tanks will reduce usage water from main supply for other grass playing fields.

### Key sports park facility facts

- 5 full size football fields.
- 2 synthetic fields with lighting.
- 3 turf fields - with lighting.
- 1 international full size Futsal court suitable also for basketball, netball, volley ball and other indoor sports.
- 1 showpiece field that will have 200 lux lighting meeting Australian semi-professional standards.
- 2 high level training fields with lighting for training.
- 6 player change rooms with toilets.
- Athlete recovery and warm up rooms.
- Twin, triple and quad rooms accommodating up to 180 people.
- 20 metre pool
- Cafe.
- Dining room.
- On site parking with parking reservation for larger events.