GOVERNMENT OF WESTERN AUSTRALIA

Department of **Biodiversity, Conservation and Attractions**

SWAN CANNING RIVERPARK

Form 1 – Application for Approval of Development

Swan and Canning Rivers Management Act 2006 – Part 5 – section 72(1)

Applicant

The applicant is the person with whom the Chief Executive Officer will correspond unless an authorised agent has been appointed to act on behalf of the applicant, in which case correspondence will be sent direct to the agent.

Name of Applicant	PERTH POLO CLUB					
Name of Company (if applicable)						
Contact person	ANDREW KIKEROS					
Postal address	PO BOX 1					
Town/Suburb	GIDGEGANNUP				Postcode	6083
Telephone	Work	93881513	Home	–	Mobile	0419705864
Facsimile						
Email						

Landowner(s)

All owner(s) of the land must sign this application. Where land is owned by the Crown or has a management order granted to a local government or other agency, this application must be signed by the relevant landowner as required under section 72(6)(a) of the Act. If there are more than 2 landowners, please provide the additional information on a separate page.

Details of 1st landowner

Full name	CITY OF SWAN					
Company/agency (if applicable)						
Position & ACN/ABN (if applicable)	Position				ACN/ABN No.	
Postal address	PO BOX 196					
Town/Suburb	MIDLAND		State	WA	Postcode	6936

Details of 2nd landowner (if applicable)

Full name						
Company/agency (if applicable)						
Position & ACN/ABN (if applicable)	Position				ACN/ABN No.	
Postal address						
Town/Suburb			State		Postcode	

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Where the applicant has appointed an authorised agent to act on their behalf, the authorised agent must attach the written authority to this application.

Have you appointed an authorised agent to act on your behalf? YES ☐ NO ☑

Details of authorised agent

Full name					
Company/agency (if applicable)					
Position in company/agency (if applicable)					
ACN/ABN (if applicable) /Telephone	ACN/ABN:	Work		Mobile	
Postal address					
Town/Suburb		State		Postcode	

Certificate of title	Volume	L3041	Folio	230
	Diagram/plan/deposit plan no.		188150	
Lot No. and location of subject lot	Lot No. (whole/part)	~~PORTION~~	LOT 234 HELENA ST	
	Location		GUILDFORD	
Reserve No. (if applicable)	RESERVE NO: 261			
Street No. and name	MEADOW STREET			
Town/Suburb	GUILDFORD			
Nearest road intersection	HELENA STREET			

If you intend to apply for a lease in relation to this proposed development you will need to complete a separate Form – Application for a River reserve lease – and lodge it concurrently with this application. Note: River reserve leases will not be granted for development that requires approval under section 70 of the Act – to which the proposed lease relates – unless that approval has been granted.

Does the development require a River reserve lease? YES ☐ NO ☑

If the development requires a River reserve lease, please tick the appropriate box below.

New lease	
Renewal of a lease	
Modification of an existing lease (ie. change in area or purpose etc.)	

Department of Biodiversity, Conservation and Attractions

GOVERNMENT OF WESTERN AUSTRALIA

SWAN CANNING RIVERPARK

Form 1 – Application for Approval of Development

Swan and Canning Rivers Management Act 2006 – Part 5 – section 72(1)

If you intend to apply for a licence in relation to this proposed development, you will need to complete a separate Form – Application for a River reserve licence – and lodge it concurrently with this application (e.g. charter vessel operation, kayak, canoe tours, etc.). Refer to the Licence Application Guidelines on how to apply for a River reserve licence.

Does the proposed development involve an activity in the River reserve that will require a River reserve licence?

YES [ ]   NO [✓]

If the development requires a River reserve licence, please tick the appropriate box below.

New licence	
Renewal of a licence	

Modification of an existing licence (ie. change in area, purpose, etc.)

Please provide a written description of the proposed development (refer to the Development Application Guidelines for further details on what information to include in this section).

Estimated cost of development	$ 450,000
Current use of land	Please describe below what the land is currently used for. NOV – MAY EQUINE ACTIVITIES (50 days) All year – General recreation – walking, dog walkers, nature play
Proposed development	Please provide a detailed written description below of the proposed use and development. If there is **insufficient space, please provide the required information as an attachment** to this application form. Demolition of existing pavillion and removal of sea container Construction of new pavillion on the same site. See attached supporting documentation * Realign track to the S.E to allow for 50 m buffer to river

GOVERNMENT OF WESTERN AUSTRALIA

Department of **Biodiversity, Conservation and Attractions**

SWAN CANNING RIVERPARK

Form 1 – Application for Approval of Development

Swan and Canning Rivers Management Act 2006 – Part 5 – section 72(1)

[redacted]

Signed by Applicant		
Applicant signature		
Date	15th September	
Print name and position (if signing on behalf of a company or agency)	Name	Andrew Kikeros
	Position	PROJECT MANAGER

Signed by Landowner/s (if the landowner is not the applicant)		
I consent to this application being made.		
Landowner signature		
Landowner signature		
Date	16/9/22	
Print name and position (if signing on behalf of a company or agency)	Name	Cliff Frewing
	Position	CEO - City of Swan

Signed by Authorised Agent (if you are acting for the applicant)		
I have attached a copy of the written authorisation for me to act on behalf of the applicant to this application.		
Authorised Agent signature		
Date		
Print name and position (if signing on behalf of a company or agency)	Name:	
	Position:	

WESTERN AUSTRALIA

REGISTER NUMBER	
234/DP188150	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
N/A	N/A

VOLUME LR3041 FOLIO 230

RECORD OF QUALIFIED CERTIFICATE OF CROWN LAND TITLE

UNDER THE TRANSFER OF LAND ACT 1893
AND THE LAND ADMINISTRATION ACT 1997

NO DUPLICATE CREATED

The undermentioned land is Crown land in the name of the STATE of WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 234 ON DEPOSITED PLAN 188150

STATUS ORDER AND PRIMARY INTEREST HOLDER:
(FIRST SCHEDULE)

STATUS ORDER/INTEREST: RESERVE UNDER MANAGEMENT ORDER

PRIMARY INTEREST HOLDER: SHIRE OF SWAN

(XE F652129) REGISTERED 24 AUGUST 1994

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. F652129 RESERVE 261 FOR THE PURPOSE OF MUNICIPAL ENDOWMENT REGISTERED 24.8.1994.
   F652129 CHANGE OF RESERVE PURPOSE. PURPOSE CHANGED TO RECREATION AND FORESHORE MANAGEMENT REGISTERED 24.8.1994.
   F652129 MANAGEMENT ORDER. CONTAINS CONDITIONS TO BE OBSERVED. WITH POWER TO LEASE FOR ANY TERM NOT EXCEEDING 21 YEARS. REGISTERED 24.8.1994.

Warning: (1) A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. Lot as described in the land description may be a lot or location.
(2) The land and interests etc. shown hereon may be affected by interests etc. that can be, but are not, shown on the register.
(3) The interests etc. shown hereon may have a different priority than shown.

----------END OF CERTIFICATE OF CROWN LAND TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: LR3041-230 (234/DP188150).
PREVIOUS TITLE: This Title.
PROPERTY STREET ADDRESS: LOT 234 HELENA ST, GUILDFORD.
LOCAL GOVERNMENT AREA: CITY OF SWAN.

END OF PAGE 1 - CONTINUED OVER

NOTE 1:	A000001A	CORRESPONDENCE FILE 1025 / 1991.
NOTE 2:		LAND PARCEL IDENTIFIER OF GUILDFORD TOWN LOT/LOT 234 ON SUPERSEDED PAPER CERTIFICATE OF CROWN LAND TITLE CHANGED TO LOT 234 ON DEPOSITED PLAN 188150 ON 21-AUG-02 TO ENABLE ISSUE OF A DIGITAL CERTIFICATE OF TITLE.
NOTE 3:		THE ABOVE NOTE MAY NOT BE SHOWN ON THE SUPERSEDED PAPER CERTIFICATE OF TITLE.

Perth Polo Club

Kings Meadow Polo Ground
Supporting Information
for Development Application

Prepared by Dr. Garry Briscoe PhD. Science
Andrew Kikeros B. App. Science Recreation Planning

May 2023

1. Introduction

The Perth Polo Club was first incorporated in 1896, making it one of Western Australia's oldest sporting organisations and have been operating out of Kings Meadow since the early 1970's. The Kings Meadow area has been a gazetted reserve since 1829. See link below:

http://inherit.stateheritage.wa.gov.au/Public/Inventory/Details/c142a3c7-a403-421f-b9fa-46101edd64f4

In 2018, the Perth Polo Club were re-issued with a 10 - year lease from the City of Swan and undertook remedial works to the existing facilities as over the course of time in the 1970's, some small buildings were constructed without planning approval.

The Dept. of Biodiversity, Conservation and Attractions and the City of Swan approved the compliance improvements, and the Club were granted their new lease. Kings Meadow is located within a development control area as it is situated adjacent to the Helena River.

Polo is played there for only a short period from November to April and the general public are afforded unrestricted access. The area is widely used by dog walkers, golfers, fly fishers and other recreational users. The Club is also partnering other equine users to use the field when not in use by polo activities. On average 50-60 local (non-horse) people per day use the grounds for casual and active recreation -

The Club were granted funds by DLGSC in 2019 to complete a Stage 1 Development comprising works aligned with improving player and horse welfare, in particular improving the turf surface and increasing the number of wash bays to support national equine welfare rules. These are detailed on Page 5. In 2021 the Club received $400,000 to build a new pavilion and in 2022 received an additional $150,000 to install the sewer and power.

Purpose of this Document

This report outlines current and possible future actions by the polo club in relation to the recreational activity and environmental management of the Kings Meadow facility so as to guide the Club in making sound business, operational and environmental regeneration decisions. This document will also be used to support a development application prepared for the building approval process of the new pavilion. Specific areas of focus such as the Nutrient Management Plan and Parking Plan are located at Appendices 1 and 2 respectively.

Lease Areas

The current lease area and facilities of the Perth Polo Club at Kings Meadow are shown below in Figure 1.

Figure 1. Kings Meadow Lease Area

2.0 Kings Meadow Redevelopment Stages 1 and 2.

Stage 1 Ground Improvement Works

The following works were completed at March 2020.

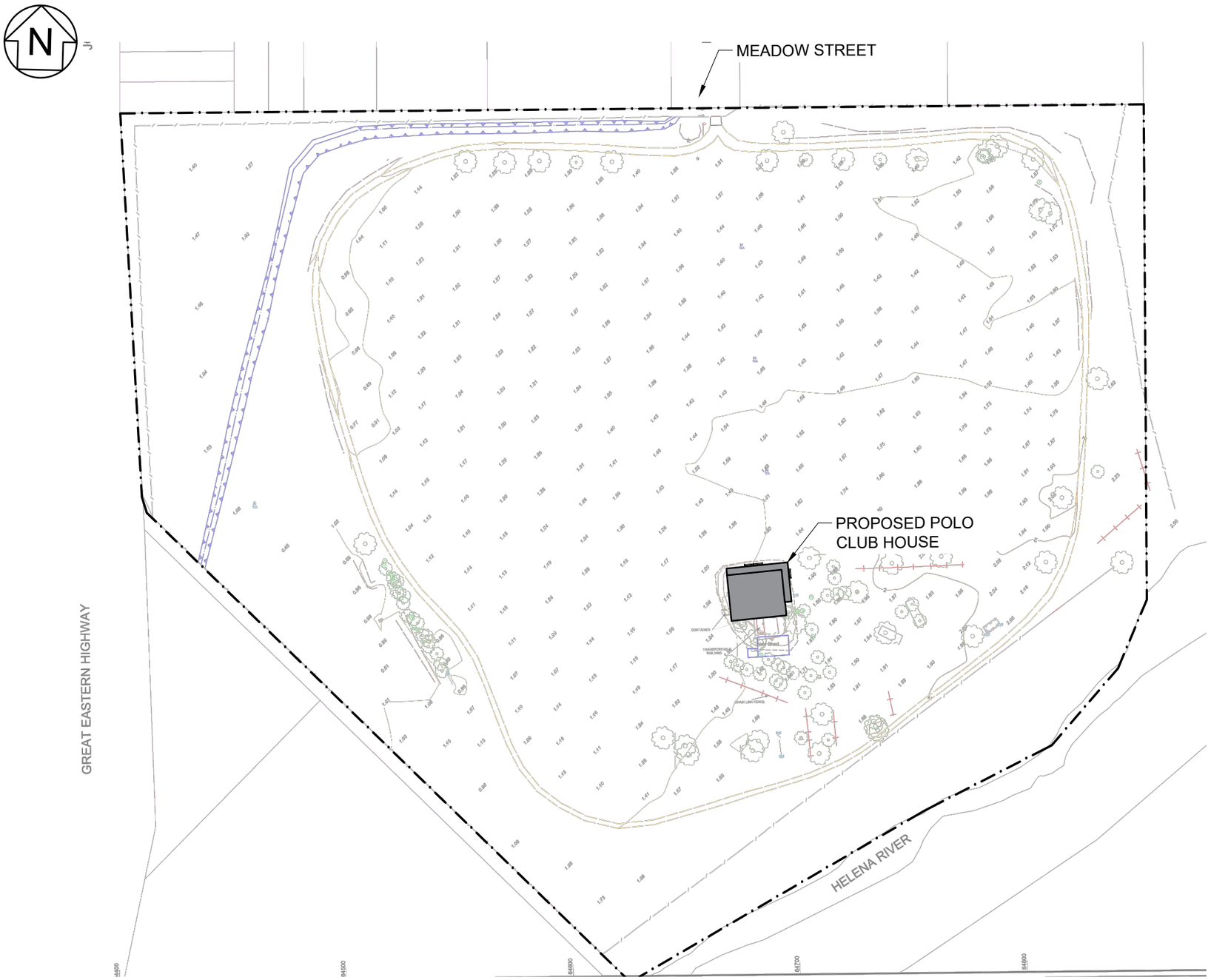
- Additional 300m of irrigation (100mm) and new hydrants to create new north/south polo field incorporating a multi-use outdoor arena
- Improvement in the playing surfaces through deep de-thatching of the surface, quality re-sanding
- Construction of new entrance to the field including new auto opening gates
- Construction of 120 sq metre shed to store the Clubs mowers and tractors
- Development of new truck parking area including refurbishing concrete wash bays (with handrails) and improved viewing of the fields through landscaping - including 500 metres of 50mm irrigation and five standpipes.
- Re-aligning of 400 metres of track to increase the playing fields and provide improved access for trucks/floats
- Leveling uneven areas to create more truck/vehicle parking
- Improving the function of the COS drainage system
- Irrigating and creating a “people only” place adjacent to the clubhouse to provide space for spectators - separating the horses and trucks from the people
- Leading the initiative with COS and DBCA to undertake ecological restoration on the lease and Helena River foreshores including potential for a Nyoongar Heritage Trail

The re-aligning of the track and the resurrection of the wash down areas and truck parking is to protect the Flooded Gum trees in the previous truck parking area. By moving to the new area (historically where we used to park) also means that we can better manage the fire risk to properties nearby us by keeping it mowed and clean.

Stage 2 Redevelopment.

In 2021 the DLGSC approved funding to the Perth Polo Club to build a new facility designed to support the Club’s operational and business goals, and to provide South Guildford with a much need local community facility. The current dilapidated facility barely caters for polo and other equine use and is non-operational in winter. A site comparative study was undertaken for the DBCA and on the basis of that report the existing site was supported, subject to the conditions and approvals required. This report is located at Appendix 3.

The building will comprise seated area for up to 120 people, a commercial kitchen to cater for regular use and for special events such as weddings. The new building will occupy the same footprint as the existing without the need to expand the mound and create any interruption on the flood plain. The Club has been provided approvals by WaterCorp and DBC to install a sewer. See following the proposed new building. **Please note that the trees depicted in the conceptual design are only for illustrative purposes only. We will not be introducing non native trees.** design on the following page. We will need to remove 4 trees that the club planted 20 years ago and replace with 12 .



SITE PLAN
1:2000

1:2000 @ A3
1:4000 @ A4

0 20 40 60 80 100 120 140 160 180 200 m

PRELIMINARY

SITE PLAN

REV	DATE	REVISION
A	03.05.23	ISSUED FOR REVIEW

DESCRIPTION: PROPOSED CLUB HOUSE & VERANDAH

PERTH POLO CLUB, KINGS MEADOW RESERVE, MEADOW STREET, GUILDFORD, WA 6055

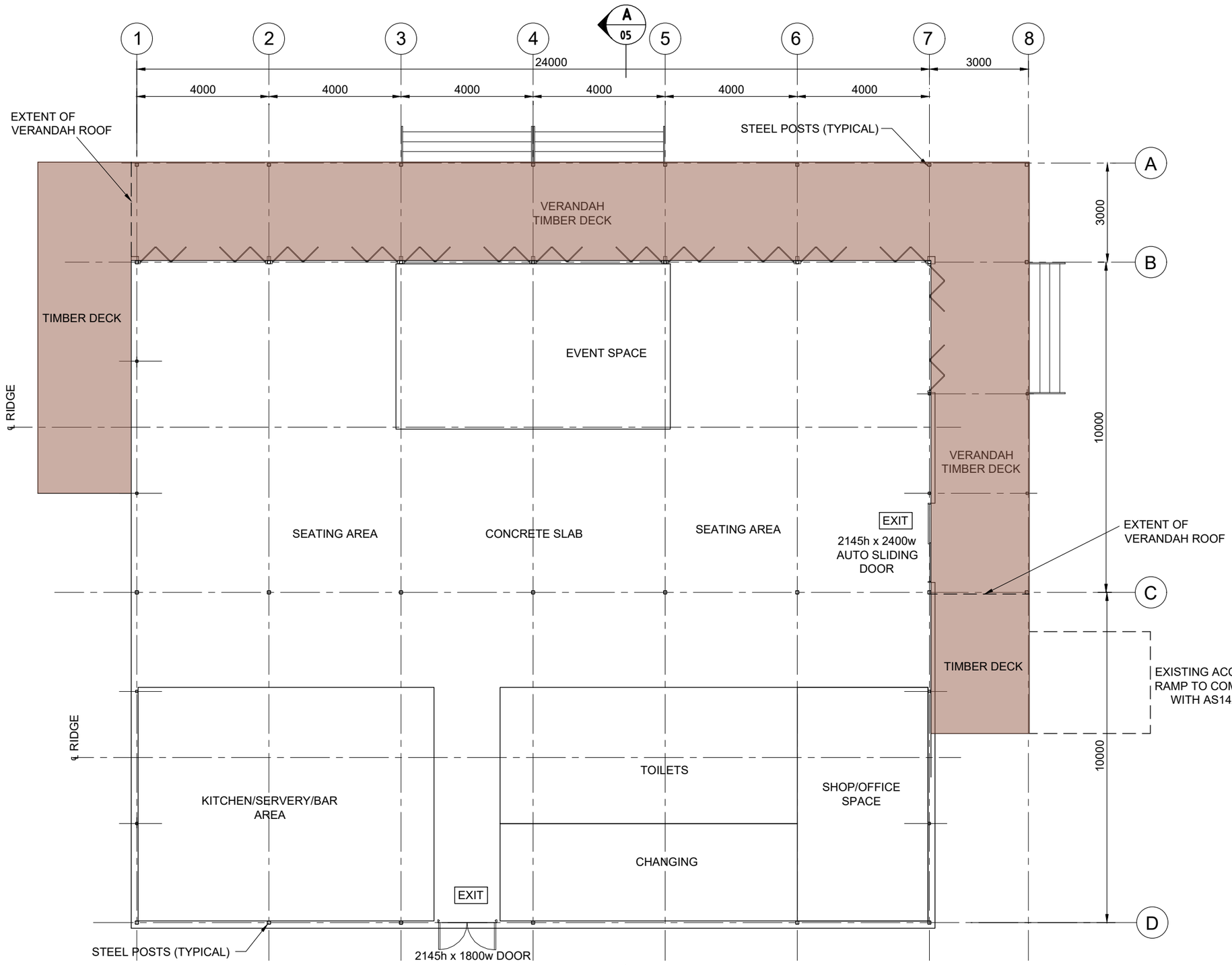
Cad Drawing and Design
10, Liriope Parkway, Sinagra, 6065.
t. 08 9405 6558 m. 0431 294 335
e. nickkingham@sky.com

CLIENT: KINGS POLO CLUB

DRAWN BY:	NK
DATE:	03.05.23
SCALE:	AS NOTED

CONTRACT No: DS876.06

DRAWING No: 01A



GENERAL NOTES

1. CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE PRIOR TO COMMENCEMENT OF WORKS, ORDERING OF MATERIALS, OR PREPARING SHOP DRAWINGS.
2. WORKMANSHIP, MATERIALS AND WORK PRACTICES MUST BE EXECUTED IN ACCORDANCE WITH THE FOLLOWING:
   -BUILDING CODE OF AUSTRALIA.
   -TRADE SPECIFIC REGULATORY CODES, REGULATIONS, STATUTES AND BY-LAWS.
   -MANUFACTURERS INSTALLATION SPECIFICATIONS, RECOMMENDATIONS AND GUIDELINES.
3. ALL NEW WORK SHALL BE CARRIED OUT BY EXPERIENCED AND COMPETENT TRADES PERSONS.
4. READ ARCHITECTURAL DRAWINGS IN ACCORDANCE WITH ASSOCIATED STRUCTURAL DRAWINGS AND DOCUMENTATION.

AREAS

SHED	= 495.00m²
VERANDAH	= 124.00m²
OPEN DECK	= 40.37m²
TOTAL BUILDING AREA	= 659.37m²

TOILET FACILITIES

FEMALE:	4 x WC
	4 x HB
MALE:	2 x URINAL
	1 x WC
	2 x HB
UAT:	1 x WC
	1 x HB
	1 x BABY CHANGE TABLE

GROUND FLOOR PLAN

1:125

BI-FOLD DOORS 2.4h x 4.0w (TYPICAL)

PRELIMINARY

BUILDING PLAN

REV	DATE	REVISION
B	04.05.23	COMMENTS ADDED
A	03.05.23	ISSUED FOR REVIEW

DESCRIPTION: PROPOSED CLUB HOUSE & VERANDAH

PERTH POLO CLUB, KINGS MEADOW RESERVE, MEADOW STREET, GUILDFORD, WA 6055

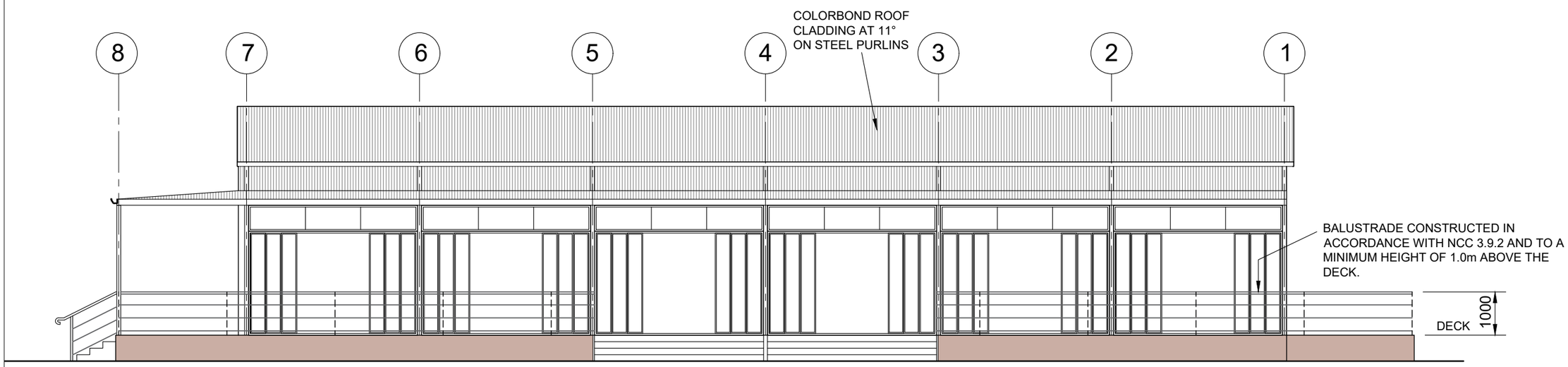
Cad Drawing and Design
10, Liriope Parkway, Sinagra, 6065.
t. 08 9405 6558 m. 0431 294 335
e. nickkingham@sky.com

CLIENT: KINGS POLO CLUB

DRAWN BY: NK
DATE: 03.05.23
SCALE: AS NOTED

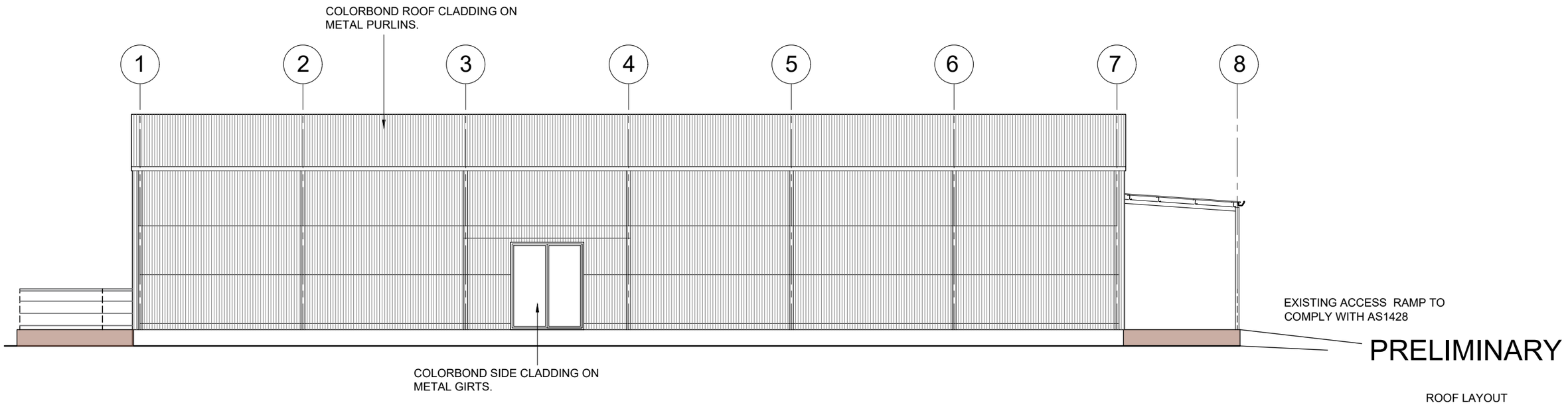
CONTRACT No: DS876.06

DRAWING No: 02B



ELEVATION ON GL A

1:100



ELEVATION ON GL D

1:100

PRELIMINARY

ROOF LAYOUT

REV	DATE	REVISION
B	04.05.23	COMMENTS ADDED
A	03.05.23	ISSUED FOR REVIEW

DESCRIPTION: PROPOSED CLUB HOUSE & VERANDAH

PERTH POLO CLUB, KINGS MEADOW RESERVE, MEADOW STREET, GUILDFORD, WA 6055

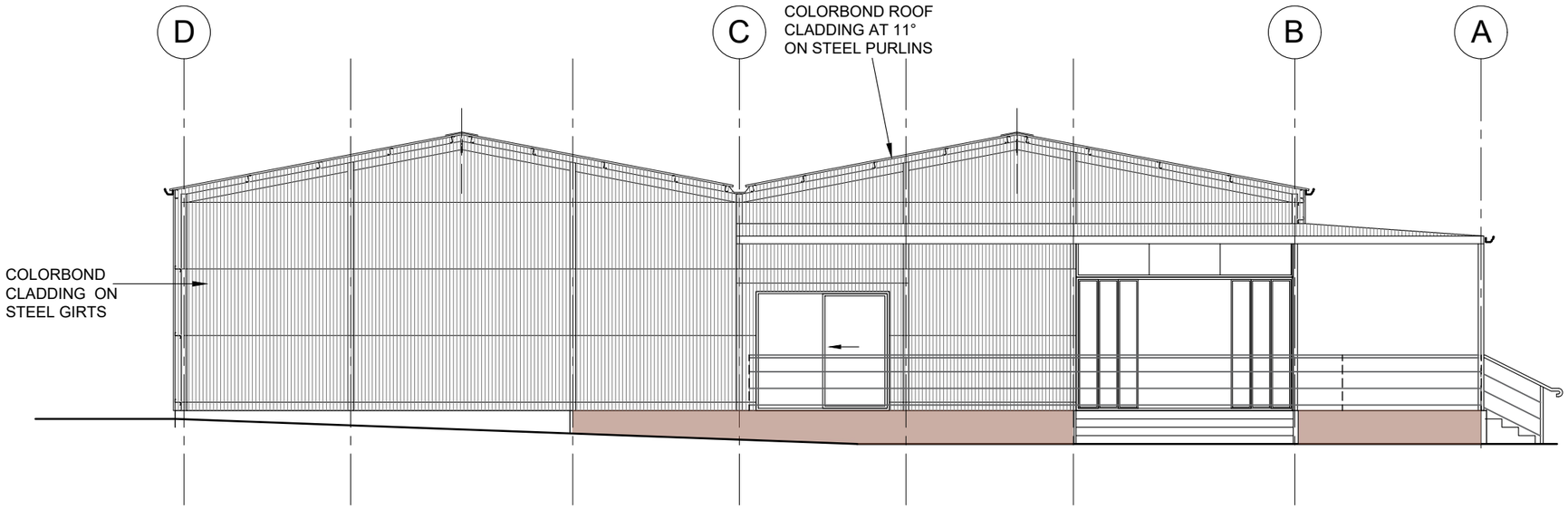
Cad Drawing and Design
10, Liriope Parkway, Sinagra, 6065.
t. 08 9405 6558 m. 0431 294 335
e. nickkingham@sky.com

CLIENT: KINGS POLO CLUB

DRAWN BY: NK
DATE: 03.05.23
SCALE: AS NOTED

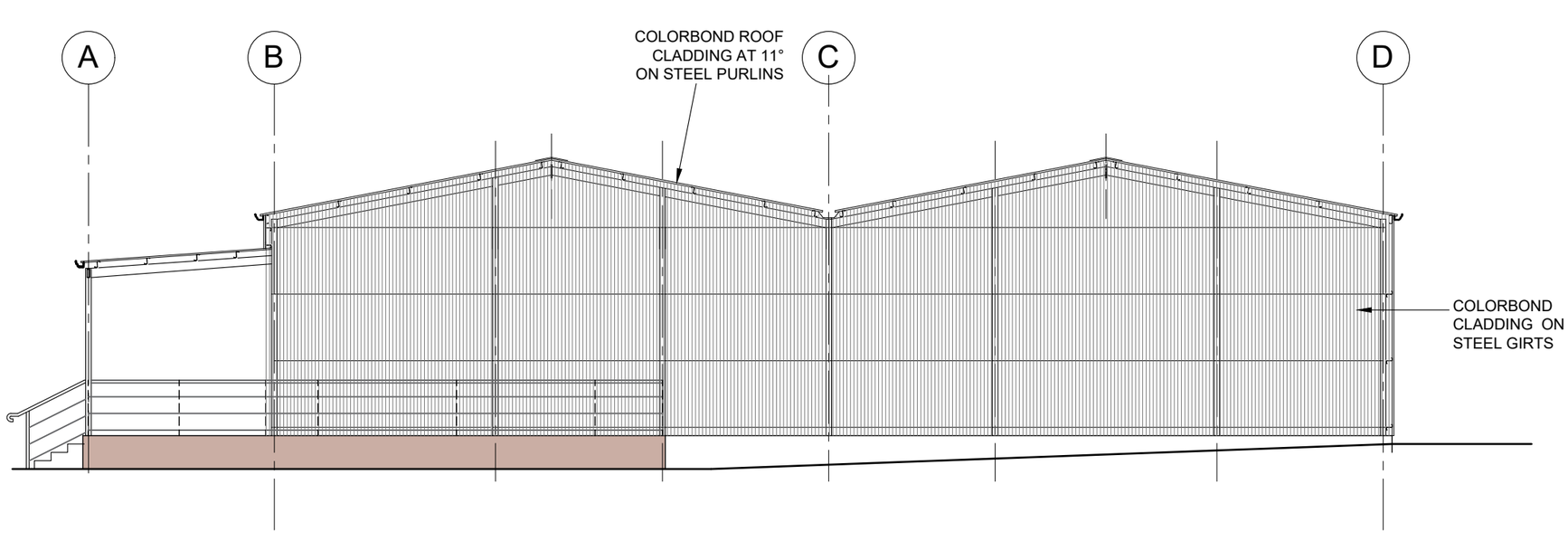
CONTRACT No: DS876.06

DRAWING No: 03B



ELEVATION ON GL 8

1:100



ELEVATION ON GL 1

1:100

PRELIMINARY

ELEVATIONS

REV	DATE	REVISION
B	04.05.23	COMMENTS ADDED
A	03.05.23	ISSUED FOR REVIEW

DESCRIPTION: PROPOSED CLUB HOUSE & VERANDAH

PERTH POLO CLUB, KINGS MEADOW RESERVE, MEADOW STREET, GUILDFORD, WA 6055

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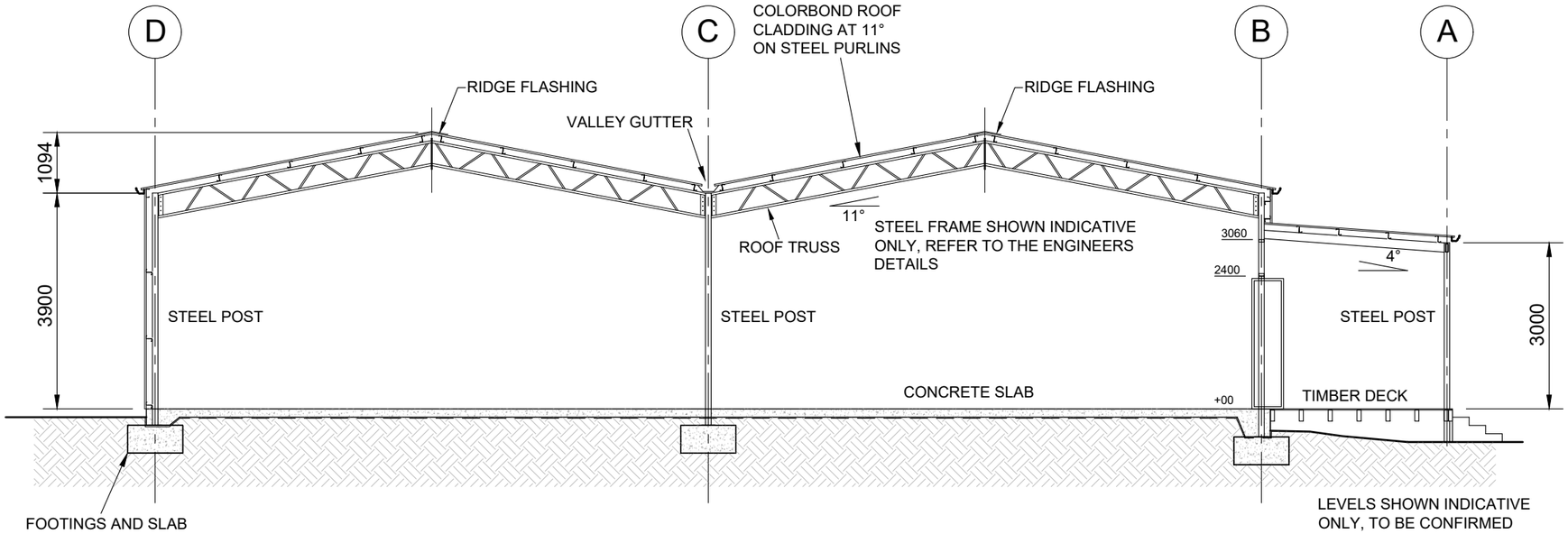
10, Liriope Parkway, Sinagra, 6065.
t. 08 9405 6558 m. 0431 294 335
e. nickkingham@sky.com

CLIENT: KINGS POLO CLUB

DRAWN BY: NK
DATE: 03.05.23
SCALE: AS NOTED

CONTRACT No: DS876.06

DRAWING No: 04B



SECTION A

1:100

PRELIMINARY

SECTION

REV	DATE	REVISION
A	03.05.23	ISSUED FOR REVIEW

DESCRIPTION: PROPOSED CLUB HOUSE & VERANDAH

PERTH POLO CLUB, KINGS MEADOW RESERVE, MEADOW STREET, GUILDFORD, WA 6055

Cad Drawing and Design
10, Liriope Parkway, Sinagra, 6065.
t. 08 9405 6558 m. 0431 294 335
e. nickkingham@sky.com

CLIENT: KINGS POLO CLUB

DRAWN BY: NK

DATE: 03.05.23

SCALE: AS NOTED

CONTRACT No: DS876.06

DRAWING No: 05A

Additional Information Relating to the Redevelopment

Structures

The sea container currently on site will be removed from its current position when demolition takes place of the old structures. We will shift the container to the eastern side of the fenced off building envelope area to be used as a secure store during construction. It will then be removed from Kings Meadow permanently.

We will be relocating the water tank currently adjacent to the gates at the entrance to the ground and relocating it to the south east side of the building to be used as part of our stormwater management plan. We will be using this water as supplemental for toilets.

See Diagram below – grey square is sea container – blue dot is tank

Removal of Tree at Pavilion – This suckered tree (Eucalyptus Rudis) will need to be removed from a safety perspective at the footprint of the pavilion. As stated in the DA the Club will be replacing more than the requisite 3 for 1 tree planting as required by DBCA as part of the overall revegetation and ecological enhancement of the ground.

3.0 Current and Intended Recreational Use

The Kings Meadow Polo field is currently used for multiple purposes. As well as hosting polo and other horse related events, it also provides substantial recreational usage for local residents. The grounds are open to the general public with unrestricted pedestrian access. Casual activities such as jogging, walking, practicing golf shots and dog exercising are undertaken by an estimated 50 to 60 people per day.

A typical polo event might involve 15 teams for a total of around 120 horses over a weekend. There are typically 4 or 5 polo events per year, and these all occur in the period from December to March. In addition, there are "practice chukkas" on a weekly basis that run for 2-3 hours during the season lasting early November to late April.

Polo events utilize the main polo field (shown as F1 in the figure on Page 9) as well as the club buildings, wash bays (which are used to clean and cool horses after strenuous activity and are compulsory from an animal welfare viewpoint). Show jumping events might include some 200 horses over a weekend, with perhaps 4 events being held over the course of a year. Show jumping events currently utilizes F2. The club utilizes the Kings Meadow reserve for around 50 days a year, including practices.

Figure 3 illustrates the range of zones and the uses within them. It should be noted that apart from horse activity the general public has free and unfettered access to the whole area. A description for the zones is below:

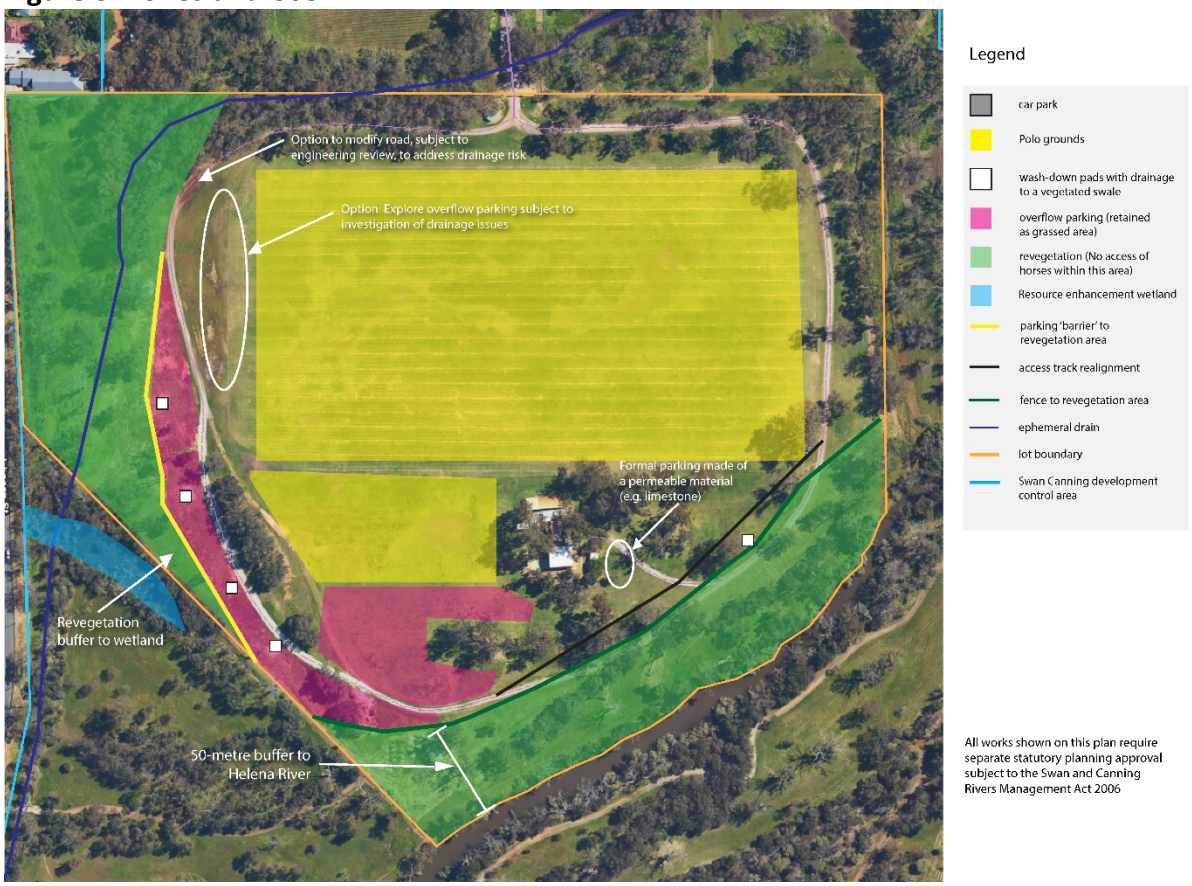
- Yellow areas - there are two fields, F1 and F2 where equine activity occurs. F1 is the main area where polo and those other horse sports can occur without causing damage to the turf. Sports such as show jumping take place on F2 which can withstand the impacts of horse jumping and if damaged won't affect polo activity

- Pink areas – these are the locations for the parking of horse trucks/floats and the tying up horses. The blue squares signify the washdown areas. See Nutrient Management Plan at Appendix 1 for more information on wash bays

- Red areas – strictly no horses. These are areas for spectators only

- Green areas – these are the areas the Club has identified in a State NRM Grant Application to prepare a fully costed plan to regenerate and to convert the drain to a living stream. Refer to Page 14 for the regeneration initiative.

Figure 3. Zones and Use



The following table shows typical usage of the facilities each year. Please note that during the times when there is no horse activity, the general public have free and unfettered access to the whole area other than any conservation zones under repair.

Zone (area)	Activity Type	Regularity
Polo Field Other equine use and general public	Polo tournaments Practice chukkas Other equine use General Public	Polo 30 days Other equine 20 days General Public all year round
Other equine use and general public	Other equine use General Public	As above
Horse parking/trucks	Area for horses to be held during tournament, truck and float parking.	50 days per year. General Public all year round

floats. Limited day yards		
Horse parking/trucks floats	Area for horses to be held during tournament, truck and float parking.	As above General Public all year round
Conservation and recreation	No horses are permitted in these areas. People allowed	All year round

Table 1: Activity type by Zone

Revegetation Plan

The Project Manager has spoken with the Chair of WAterways WA to progress the initiative. We will consult with DBCA including creating a living stream out of the City of Swan drain that runs through the property and into the Helena River. The Club is willing to undertake regeneration work subject to receiving external funding to under-take the work. It is anticipated that these areas would permit limited passive recreation activity.

Please see on the following page the proposal for the revegetation and living stream project. Please see Figure 3 on Page 13 for timeframes.

The Club has made an application to State NRM for the feasibility and planning components of the project and will apply to Lotterywest for the project implementation works. Discussion has taken place with Lotterywest and they are keen to see an application. If we are not successful with the State NRM grant we will seek other funding to carry out the planning work.

Activities	Start date	Finish date	What will be delivered
Establish Project Working Group	30-Sep-23	31-Dec-26	Assembling key parties to manage the project
Establish Terms of Reference	15-Oct-23	15-Nov-23	Road map for the working group
Run monthly project working group meetings	15-Oct-23	31-Dec-26	Keep progress and project on track
Formlise partnerships with WAterways WA, Lower Helena Association and other parties	15-Oct-23	Ongoing	Create alliances
Design Nutrient Management Plan	15-Oct-23	Ongoing	Develop understanding of impacts on the ground from Club activities and the runoff from road and residents
Plant trees to replace those removed for building and sewer	15-Oct-23	15-Nov-23	Meet DBCA conditions
Commence monitoring of nutrients and toxins	15-Oct-23	Ongoing	Create baseline data to measure impacts
Plant sedges behind wash bays	15-Oct-23	31-Oct-23	Mitigate wash down water
Undertake desk top analysis of Guildford Floodplain	30-Oct-23	30-Dec-23	Create understanding of catchment changes
Produce issues paper	15-Nov-23	30-12-23	Identify all external factors affecting the project
Run community consultation program	30-Nov-23	31-Jan-24	Ensure the community are informed and supportive
Carry out flora and fauna audit	15-Oct-23	31-Mar-24	Develop species inventory
Design revegetation plan	01-Nov-23	15-Dec-23	A plan of what is needed to revegetate and enhance
Design living stream	30-Aug-23	15-Nov-23	A plan of what is needed to convert the drain into a living stream
Produce Draft master plan	30-Nov-23	15-Jan-24	Plan of the intended enhancement
Cost the project	30-Sep-23	31-Jan-24	Costing for project

Apply for approvals	15-Jan-24	31-Mar-24	Investigating and commencement of relevant approvals
Seek resources for implementation	30-Aug-23	31-Dec-24	Investigating and commencement of funding sources
Implement revegetation and living stream project	31-Mar-24	31-12-26	Execute as per plan
Project Coordination and admin. Support consultants, undertake coordination of project team, oversee communications	15-Jan-24	31-Dec-26	Coordination and administration of project

The photo below was taken in March at the launch of the WAterwaysWA Helena River Project at Kings Meadow. The Club have made a commitment to undertake restorative work subject to external funding.


New era for Kings Meadow Polo Ground
Perth Polo Club has been at Kings Meadow since 1974. We are building a new pavilion to service the Club, the polo community, other equine groups, and the Guildford community.
As stewards of this magnificent site on the Helena River, we plan to enhance and protect its ecological integrity by connecting to sewer, revegetating areas, converting a drain into a living stream and developing a heritage trail.
The building project has been made possible through the generous support of the WA Government, as part of the Department of Local Government Sport and Cultural Industries State Sporting Infrastructure Fund grant program.
Join the Club and become a part of a lasting recreational, social, and environmental legacy!
Perth Polo Club
Department of

Tourism and Visitors to Region

Each polo or other equine related event results in an influx of visitors to the region, providing additional revenue to local businesses such as restaurants, hotels, and retail shops. A recent national survey of both polo and polocrosse estimated that recreational horse participants spend approximately $350 per person per day when attending tournaments. An Eventscorp ROI in 2008 on the National Polocrosse Championships held in the Swan Valley showed a return over 28:1 on their investment.

Amenity of River Usage Along Southern Boundary

The region to the north of the Helena River, along the river foreshore, is managed by an Aboriginal Heritage Agreement (Registered Aboriginal Site 3758: Helena river – Legacy ID: S02148). This is a traditional ceremonial and mythological region with some restrictions on the use of the land. Access to this region is limited to persons only – no horses, cars, or trucks. A 50-meter exclusion zone along the foreshore is currently maintained.

Aboriginal Heritage Site

The Kings Meadows is also subject to an aboriginal heritage agreement (Registered Aboriginal Site 3609: The Meadows - Legacy ID: S02346). This is listed as a traditional camp site but there appear to be no restrictions on the usage of the land.

The Perth Polo Club submitted planning approval to the DPLH in 2020 for the Stage 1 Redevelopment works undertaken and were granted consent under Regulations 7 and 10 of the *Aboriginal heritage Regulations 1974*. It should be noted that the level of ground interference for the proposed Stage 2 will be commensurate with that of Stage 1.

The Club has had discussions with Greg and Ben Ugle (they were contracted to undertake the monitoring of the trenching for the sewer works) regarding the development of an interpretive heritage trail along the Helena River. The Club as allocated money within the State NRM Grant to engage relevant expertise as recommended by the Whadjuk Cultural Advisory to support such an initiative along the entire Helena River.

Management Zones

It should be noted that the local Guildford residents and indeed, the general public, have access to a beautiful park area, with both cleared spaces and natural bush, as well as access to the Helena River for active and passive recreation. This is provided at no cost to the ratepayers by the Perth Polo Club at an expense of over $55k per year plus two thousand volunteer hours. The table below provides a summary of the zones and the current and intended management practices.

Zone (area)	Current Management
Polo Field Other equine use and general public	Annually top dressed with river sand. Verti mowed before start of the season and then mowed three times a week from November to April. Phosphate fertilizer in the form of granulated Eco Prime is applied twice each year at a rate of 125 kg per Ha. This equates to 1000 kg per application. Liquid Flexi N nitrogen fertilizer (200 kg) is applied 4 times per year for a total application of 800 kg. Wetting agent is applied twice a season 80 litres at a time. Manure is left on ground and mown into field.
Other equine use and general public	Mowed three times a week. November to April Manure is left on ground and mown into field
Horse parking/trucks floats.	Slashed at the beginning of the season. Manure is picked up and bagged
Horse parking/trucks floats	Slashed beginning of the season. Manure is picked up and bagged
People only, no horses	Mowed and watered. October to May
Conservation/limited access	No horses or vehicles are permitted

Summary

The Perth Polo Club has operated at Kings Meadow for nearly half a century and has provided a quality resource for a range of equine pursuits and general recreation activities, both active and passive.

The Club has been highly successful in acquiring in excess of $800,000 over three years from DLGSC to develop Kings Meadow into a high value community recreation asset and the construction of the new pavilion will offer new and increased opportunities for recreation participation.

The Board and members of Perth Polo Club are now looking to a period of close collaboration with the City of Swan, additional relevant State Government agencies and, the local community to support us in turning Kings Meadow into an equine and other compatible and recreational and ecological showpiece.

Appendix 1. Environmental Management and Nutrient Management Plan of Kings Meadow

The following section examines existing land management practices and potential improvements. It also comprises suggested changes to existing land, drainage channels, trees, and other vegetation. Any land management practices, such as regeneration of non-grassed areas will require external funding to carry out.

At present the Perth Polo Club spends in excess of $55, 000 plus volunteer labour to manage the grounds for the whole community without external funding.

Environmental Impacts

Over the years several issues have been raised by a few members of the local community in relation to the usage and management of the Kings Meadow facilities and consequently have been raised by relevant authorities. These issues include:

- Dieback of the flooded gum trees at Kings Meadow and surrounding areas
- Parking on the grounds, especially near trees, that can result in soil compaction
- Possible pollution from fertilization of the grounds
- Possible pollution from horse defecation and washing.

This report addresses these issues and where appropriate, proposes remedies.

Soil Type

The Guildford soil type is Eastern Coastal Plain, as indicated in the Figure 1 below:

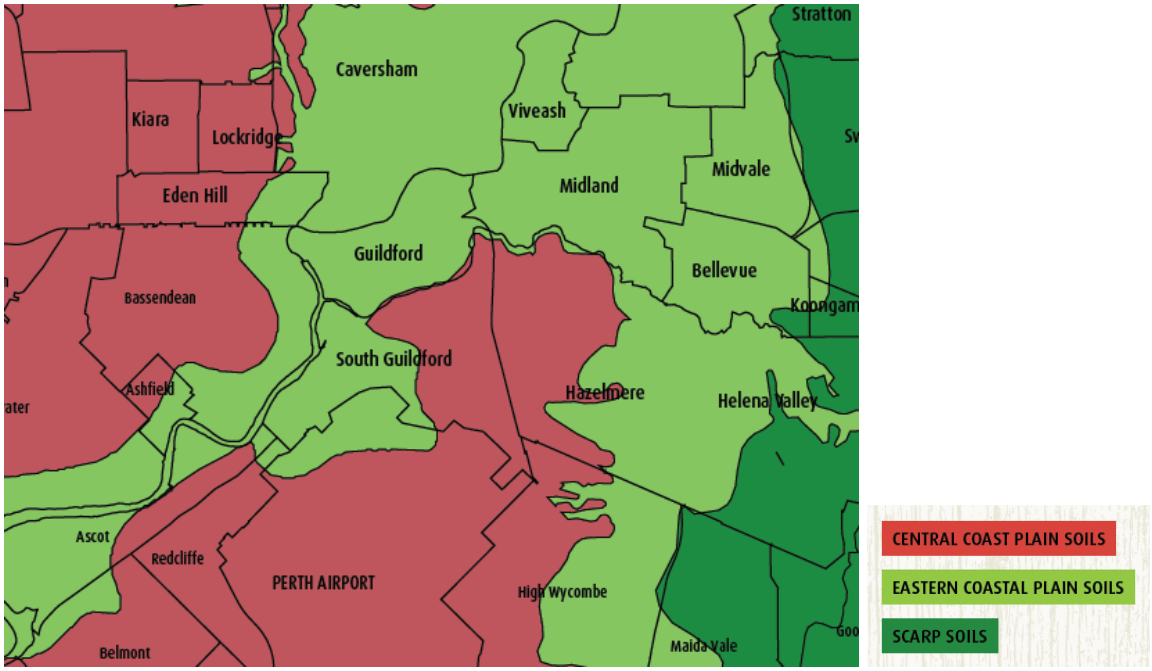


Figure 1: Soil Type

Located at the base of the Darling Scarp, and along the Swan and Canning Rivers, East Coastal Plain, soils include variable sandy, loamy, and clayey soils which are often seasonally wet.

The landform is primarily of alluvial origin, formed by the major rivers that dissect it, and is, in effect, the floodplain of these rivers. Whilst the soils are primarily clay, there is also sand in the soils, which came from sand blown inland from the dunes in the west. The clay nature of these soils and the generally low relief means that they are naturally poorly drained and hold surface water for parts of winter.

Guildford became an early settlement because of a combination of the fact that it was located at the upper limit of navigation on the Swan River and that the land around the infant settlement was sufficiently good (good clay loam soils) to sustain English style agriculture.

Current Turf Management

The Club spends approximately $50-60k per year (actual money) without external funding. As the club operates on a river flood plain it adopts a very different approach to what one would use on a sand-based turf. This river flat has been built up over thousands of years and has high nutritional value plus does not leech the same as a sand base.

The club fertilizes the 5 Ha area of the polo field in November using 75 Kg of Eco Prime Red fertilizer per Ha and again in mid-January with the same application. This totals 150Kg per Ha for the 12 months, this fertilizer is a slow-release product suited for clay application. As stated, this highly nutritious clay base doesn't leech so it is not necessary to be using high applications of fertilizer.

When dealing with this deep clay base situation it becomes necessary to use a wetting agent to let the water penetrate deep enough for the Kikuyu Grass to develop a root system deep enough to maintain vigorous growth.

Clay soils will compact with the machinery passing over as it does several times weekly plus the horses galloping over it three days a week during the polo playing season from November until mid-April. It must be understood that a polo pony weighs around 440 Kg and there are 8 of them on the field every time plus the 2 umpire's ponies.

Few people know the footfall of a horse which adds to the compaction, for example at the walk horses are on 4 time , at the trot they are on 2 time, at the canter they are on 3 time and when they gallop they break the diagonal and go to 4 time and at one point the whole half tonne weight is on the one foot

The Club uses Aqua Force wetter once a year at the application rate of 15 Litres per Ha, applied with a mixture of 1000 Litres of water per Ha. It becomes necessary to apply wetter when a test probe can't be pushed 200 mm deep. What happens if the probe can't penetrate that depth then the water stays on the top 50 mm and evaporates due to sunlight and wind evaporation.

Watering is necessary also to be judged by the probe test along with the heat stress visibly showing on the turf. it is essential that Kikuyu Grass receives 25mm per week to grow, anything less will only keep it in existence but no growth.

It is important to use the fertilizer even though in minimum application to promote deep root growth of the turf so as to give a strong surface for the wear stress of the horses hooves.

Future management of the turf

Subject to resources the Club commits to installing and undertaking:

- Regular monitoring of nitrogen and phosphorous at the ground
- Will seek funds to water more efficiently – we have initiated and kept reminding COS to apply for the recent WaterCorp grant program so we can buy a better irrigator. We are also considering the viability of pop up sprinklers at the ground
- We will quake the ground to improve the performance of the turf

Additional information on the Management of Grassed Areas

The grassed fields and surrounds are regularly maintained throughout the year apart from the winter months due to water inundation.

Phosphate fertilizer in the form of granulated Eco Prime is applied twice each year at a rate of 125 kg per Ha. This equates to 1000 kg per application. The application rate is well within the recommended usage guidelines and is comparable to fertilizer application rates on other similar grassed areas. Refer to link below:

https://ecogrowth.com.au/ecogrowthk12/media/images/products/sds%20docs/sds_granular_eco-prime-soft-rock-phos_2-1_2019_national.pdf

This product is not persistent and degrades moderately rapidly when exposed to environmental conditions, especially when put into contact with water and soil. The bioaccumulative potential is very low to non-bioaccumulative. It has low soil mobility under normal environmental conditions. Refer link below:

https://grdc.com.au/__data/assets/pdf_file/0016/212452/the-potential-of-fluid-fertilisers-for-broadacre-cropping-in-australia.pdf.pdf

Liquid Flexi N nitrogen fertilizer (200 kg) is applied 4 times per year for a total application of 800 kg. Flexi-N is the most common liquid fertilizer in use in Western Australia.

https://grdc.com.au/__data/assets/pdf_file/0016/212452/the-potential-of-fluid-fertilisers-for-broadacre-cropping-in-australia.pdf.pdf

Around 34,000 kl of water is applied to the grassed surfaces each year. There has been some local community concern that runoff from the fields would find its way into the drain, and then into the Helena River. Given the soil type and the amount of fertiliser used, the risk of nutrification affecting the Helena River is deemed as negligible.

Drains

The City of Swan, the DBCA and other agencies have joint responsibility in managing the water quality of the Helena River catchment, and are concerned about pollution impacts from adjacent communities. These potential impacts include the functioning of drainage systems, and excessive fertiliser use. The drain running though Kings Meadow is owned by the City of Swan, and other than monitoring mosquito larvae does not undertake any work on the drain.

The open drainage channel runs through the property from north to south, before draining into the Helena River. It may also be beneficial to convert the drain into a living stream. Suitable plantings and other added features could improve the health of the stream through stripping out any excess nutrients and through stabilizing the banks. An extension to the channel could also drain off excess water that currently remains as standing water on the north-west corner of the playing field and adjacent areas.

It is understood that external funding will be sought to undertake this project.

Image 1: Large culvert on Helena Street runs all year.
Runoff from Johnson and Helena Street carry road pollutants and residential garden run-off

Water Runoff from Horse Wash bays

There are four horse wash bays to the west of the playing fields and 1 other to the east (shown as blue dots in figure below). These are small concrete pads with hosing facilities

and are provided so that horse owners can clean and cool their horses after strenuous activity. They are an essential animal welfare requirement for any horse event. The orange line is a drain owned by the COS that discharges road wash into the Helena River. The white line is the track realignment from 2 years ago.

A concern has been raised that run-off from the wash bays could flow into the nearby drain and then subsequently into the Helena River.

One of the wash bays is 10 meters from the drain running through the area and this wash bay has been removed from use by capping the end of the water line. The others are around 40 to 50 meters away.

Please note that the vehicle parking is separated from the drain by an existing fence along our western boundary. The drain is on the western side of our property when adjacent to the washbays. Refer to parking figure on Page 34 for more information on vehicles and drains.

In a typical season from November to April (including polo and other equine events) there would be on average at Kings Meadow from November to April there are 50 “horse event days”. The 50 days include 24 afternoons (3 hours each) practice, 10 tournament days and approximately 20 non polo equine days. For each “horse event day” an average of 40 horses

will be present creating a total of “2000” horse presentations. Not all horses get hosed down. For this exercise we assume a higher percentage of 75% getting hosed down. This equates to 1500 horses getting hosed down over 50 days – an average of 30 per day.

A test of the water runoff from the horse wash bays was undertaken in December 2020 on a day where the temperature was near 30 degrees Celsius. Fifteen horses were washed over a total period of around 4 hours. Each was hosed off for approximately 3 minutes, and an estimated 30 litres of water used for each.

No surface water was observed further than approximately 60 cm from the concrete base of the wash bay at the runoff end. A shallow trench was then dug 1 metre from the runoff edge of the concrete of the wash bay in the direction of any expected runoff towards the drain which was around 40 meters away. The trench showed no evidence of any water in the soil. A video of this test is available below:

https://youtu.be/PFQnOXE4pWY

Horse Manure

When managed properly, horse manure can be a valuable resource as a source of nutrients for plant growth as well as improving the soil quality. The organic matter present in manure can improve the water holding capacity of the soil.

A 450kg horse will produce 5000-9000 kg of manure a year, containing around 50kg nitrogen, 5-10kg phosphorus, 40kg potassium, 45kg calcium, 8kg magnesium and 8kg sulphur. On average a horse will defecate 8-10 times per day and each deposit weighs 800-1000 grams.

On average at Kings Meadow from November to April there are 50 “horse event days”. Each day averages 6 hours. The 50 days include 24 afternoons (3 hours each) practice, 10 tournament days and approximately 20 non polo equine days. For each “horse event day” an average of 20 horses will be present. Based on this it is estimated there are “1000” horse participant days of 6 hours. During this time, it is anticipated that they will defecate 3-5 times at 800gms each time. This is a total manure load of 3200kg of manure.

Nitrogen present in organic matter in the manure will be converted in the soil to ammonia and then nitrate, which can be taken up by plants and grass. Nitrate can also undergo the process of denitrification in the soil and be lost into the atmosphere as gaseous nitrogen (NO, N2O, or N2).

Phosphorus is also present in manure. When spread on the land it will not leach like nitrogen, unless the soil matrix where phosphorus binds becomes overly saturated with phosphorus.

Given the soil and vegetation condition at Kings Meadow, it is not anticipated that nitrogen or phosphorus will enter the waterways of either the drain or the Helena River. Despite the low risk, the Club will ensure that manure is picked up every second day at a minimum. The

manure on the fields is mowed back into the surface. Manure deposited at the tie up lines and wash bays will be collected, bagged with clippings and given away free.

Horses will also produce 15-40L of urine per day, but this is less of a problem as it infiltrates into the soil.

Sewer

Waste from the existing building at Kings Meadow is serviced by two septic tanks and a leach drain. In order to replace this system for the new building when capacity will be increased, the Club has investigated the option for connecting to the Water Corporation sewer. This has been approved, funded and works commenced as at beginning May 2023.

The figure below indicates the location of the sewer point and the approximate distance and route for trenching. A feasibility study was prepared for the Water Corporation and based on that information has given permission to the Club to connect into the sewer and an engineering company is soon to be engaged to design and cost the system.

Please note that approval of the sewer works is the subject of a Form 7 Application for Permit and not the DA.

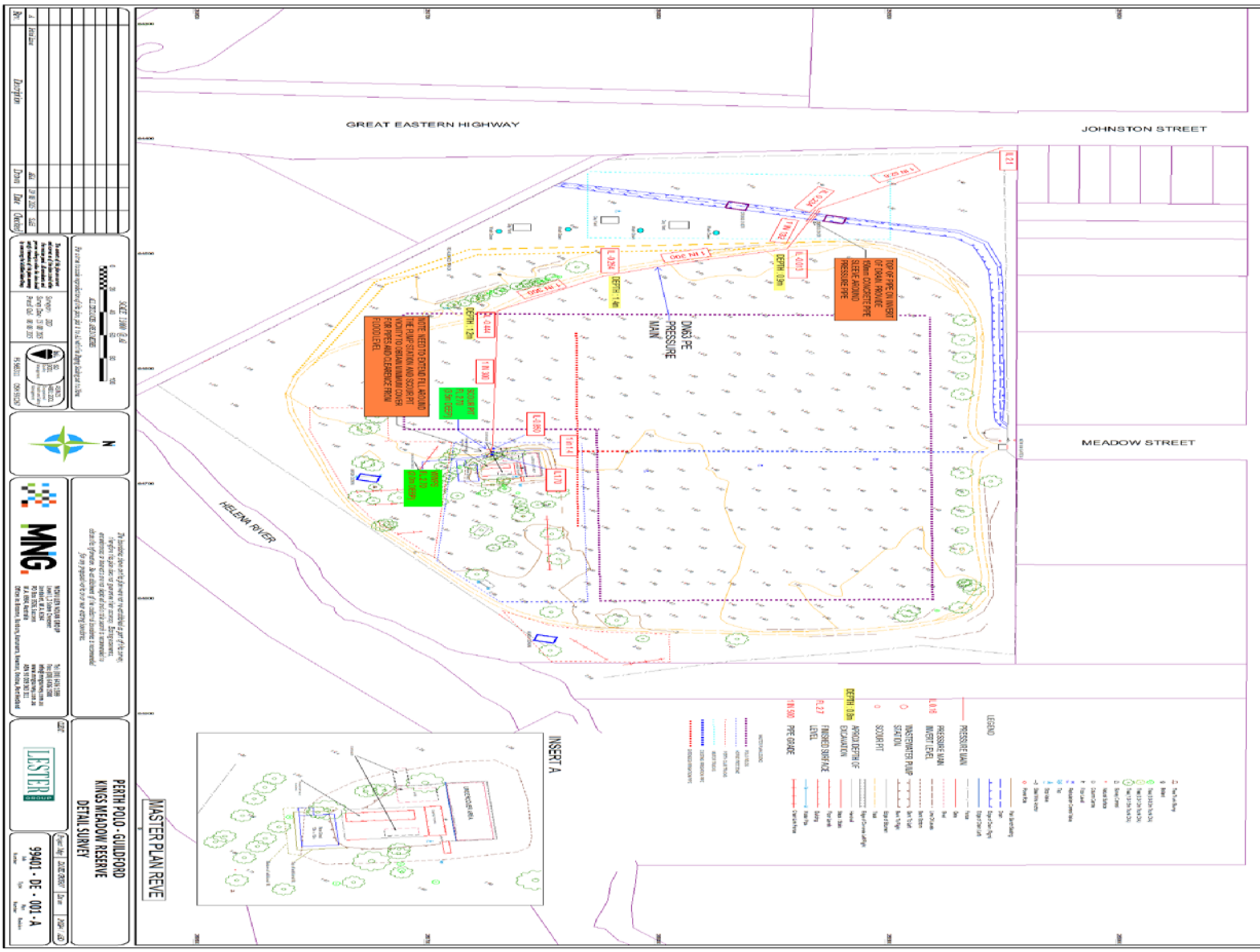
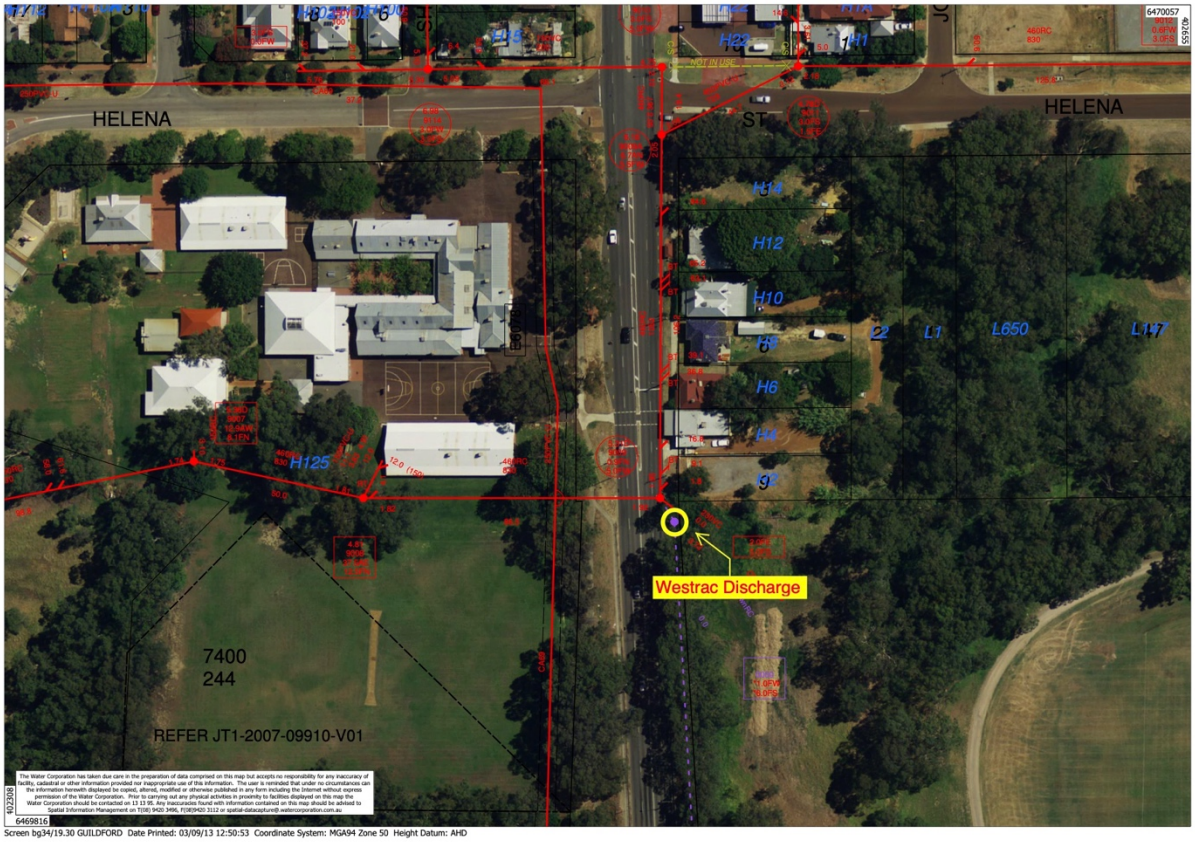


Figure 5: Sewer connection



Commercial waste hydraulic loading rates for Kings Meadow Pavilion

Table 1 below illustrates the usage patterns expected at Kings Meadow. Historically when the Club runs larger events it hires portable toilets. In the future this will not be necessary unless for very large events. The information in the table are best case scenarios for bookings once the pavilion is built.

Table 1: Usage Patterns

Type of Event	Frequency	Number of people	When
Horse competitions	12 per year	200	Nov-April weekends
Functions	20	120	All year on weekends
Meetings	15	50	All year evenings

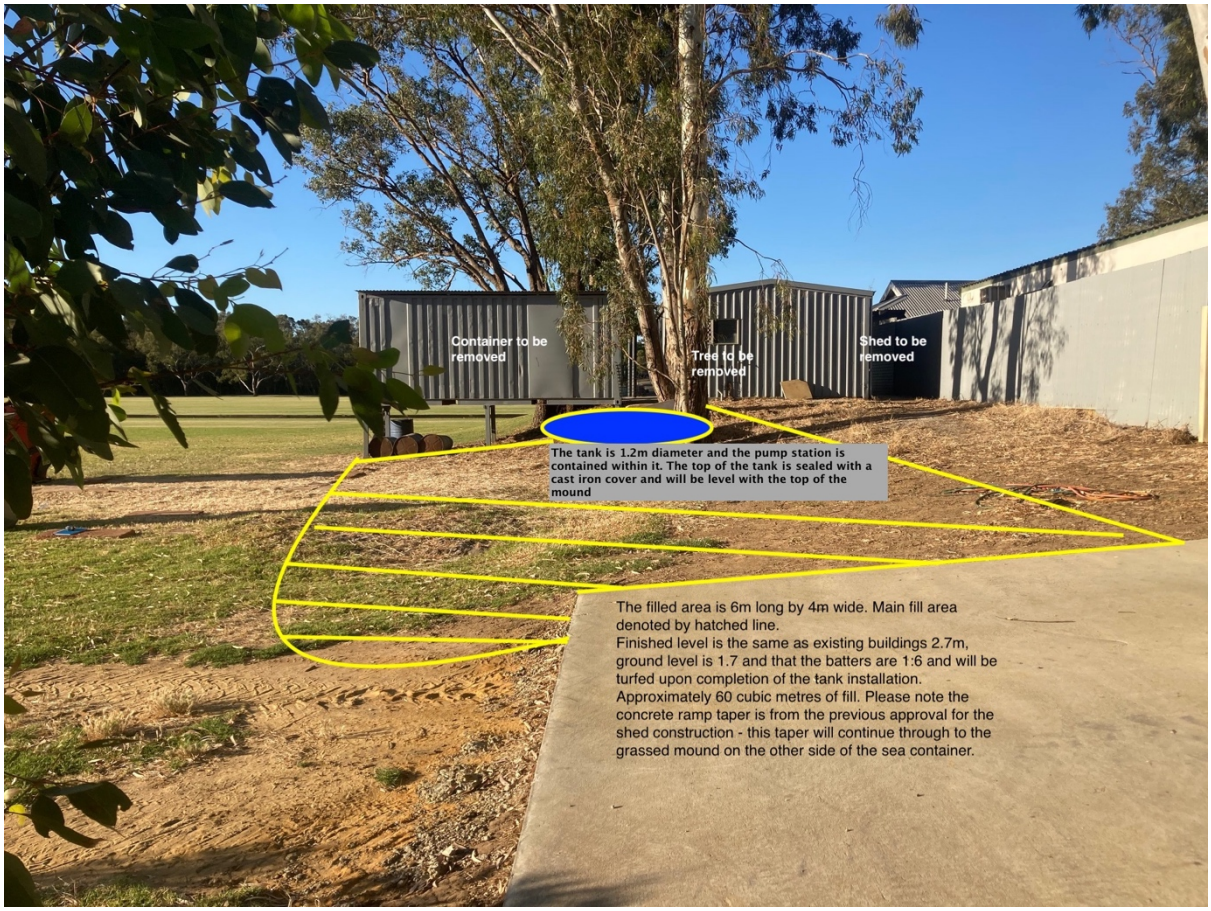
Table 2. Commercial waste hydraulic loading rates for Kings Meadow Pavilion

Type of Premises as defined by the WA Dept of Health - Supplement to Regulation 29 and Schedule 9 - Wastewater system loading rates	Range of use	Combined Flow (L/person/day) including staff
Cafe/Restaurant (Public Building Frequent Use) 20 times per year	120 public @ 30 litres per person per day 2 staff @ 70 litres per person per day	3600 140
Sporting venue (Public Building Infrequent Use) spectators	200 @ 20 litres per person per day	4000
Sporting Club 4 times per year	2 showers @ 2 people at 70 litres per person per day	280 litres per day
Total As indicated the Pavilion would be discharging into the sewer during those periods when Westrac are not operating – that is during weekends and evenings		8020 litres per day .09 litres per second

Additional fill requirement for Sewer

The figure below shows the location of the tank and the changes to the mound. Contact has been made with the Swan Avon office of the Department Environment Waters and Rivers as part of the Form 7 Permit application.

Advice has also been sought from DPLH regarding the heritage implications of trenching the sewer as part of the Form 7 Permit application. Permission was granted and the Club contracted two Aboriginal representatives to monitor the trenching work.



Dieback of Flooded Gum Trees

Tree diseases are complex, and many symptoms are not unique to those caused by single agents; thus, care must be exercised in diagnosing them.

Many factors contribute to tree decline including old age. Long-term stressors such as climate change, combined with other stress factors such as drought, cause trees to become vulnerable to pathogens and other contributing factors.

Phytophthora dieback is caused by a plant pathogen which kills susceptible plants by attacking their root systems. Many types of trees can become diseased, including tuart, flooded gum, marri, jarrah, and others. The disease was probably introduced by early European settlers in the soil of plants they brought with them.

The disease is unfortunately very common throughout the south-west of WA, where over one million hectares are infected. Dieback affects more than 40 per cent of the native plant species and half of the endangered ones in the south-west of Western Australia.

The plants die because they cannot take up the water and nutrients they need. There is currently no known cure for the disease.

The fungus is spread through the movement of soil and mud, especially by vehicles and footwear. It also moves in free water and via root-to-root contact between plants. It is expected that phytophthora is brought onto Kings Meadow via the Helena River.

Dieback is a complex and progressive phenomenon for which a large number of causes have been proposed, both biological and environmental. It is unlikely that dieback can be attributed to a single causal factor, although White (1986) (among others) has proposed that changes in weather patterns initiated the dieback progression.
(White, T.C.R. 1986. Weather, Eucalyptus dieback in New England, and a general hypothesis of the cause of dieback. Pacific Sci. 40: 58-78)

Global changes in climate are having a significant impact on forested ecosystems, causing increases in tree mortality rates, and decreases in tree growth and health. Besides changes in temperature and rainfall, climate change projections for Australia indicate an increase in the frequency and intensity of extreme climatic events. More intense extreme events will have a major impact on tree-dominated ecosystems.

In the southwest of Western Australia, for example, 26% of mature trees across some 7,000 hectares of forest died in response to extreme drought and multiple heatwaves in 2010/2011. (https://www.ecolsoc.org.au/wp-content/uploads/ESA-Hot-Topic-Climate-Change-Trees-Under-Pressure.pdf)

Climate-induced forest dieback is, in fact, an escalating *global* phenomenon.

There is essentially nothing the club can do about dieback, except to minimize potential contributing factors such as possible soil compaction around the base of the Flooded Gum trees due to the parking of cars and trucks. The Club no longer allows heavy vehicles to park near the flooded gums.

If possible, re-establishing native shrubs and grasses in the understory of the established gum stands and in new plantings will help improve tree survival. It is pertinent to note that the Perth Polo Club has planted many trees in the lease area (not flooded gums).

Summary

The Perth Polo Club understands and has demonstrated over five decades stewardship of Kings Meadow and is aware of the significant ecological and social value. The Club has run the ground mainly in isolation and is greatly looking forward to a collaborative and enthusiastic partnership with other organisations in undertaking a significant role in enhancing the environmental integrity of the area in concert with its use as an equine and other passive recreation resource.

The following table highlights the range of environmental considerations at Kings Meadow and how the Perth Polo Club is either currently managing them or what strategies it intends to undertake.

Environmental Considerations	Current and Intended Management Strategies
Drain	Develop a living stream strategy and through external funding PPC undertake remedial works
Parking	Prevent horse related vehicle parking adjacent to flooded gums Monitor health of the trees at Kings Meadow where vehicles park and if necessary, seek professional advice for any remediation such as aeration of compacted ground.
Horses	Ban movement of horses in the red (people only) and green (conservation) zones
Dieback	Develop a register of those people currently accessing KM (generally unannounced) so as to have a better understanding of the health of the trees.
Vegetation	Prepare a revegetation plan for the conservation areas and seek external funding
Nutrient load	Continue to monitor the fertilising and watering and seek efficiencies in the turf management. Implement manure management plan Install nutrient stripping beds at wash bays

Appendix 2 Traffic Management and Parking Plan

The figure below (pink shaded areas) depicts the parking plan for the busiest equine day such as a combined polo and show jumping tournament. The majority of the horse truck parking occurs to the south west of the property. Trucks also park in the small squares. Small vehicle parking can also occur in and among the trucks. The long area to the north is primarily small vehicle parking.

In addition, on days where we have large events we will:

1. Install signage directing people to park appropriately
2. Have a Club member and or caretaker direct people to park appropriately

For any event where we expect more than a 1000 people we are required to notify the City of Swan and if required will have an authorised traffic warden on Helena Street to safely permit exodus of vehicles – In particular horse trucks.

We are installing a designated carparking area adjacent to the eastern end of the building using the same road base we use for our track as the permeable material. Our track responds well to inundation. We will be realigning the track as per DBCA's request during the construction phase.

Track Realignment and shifting the tie up lines

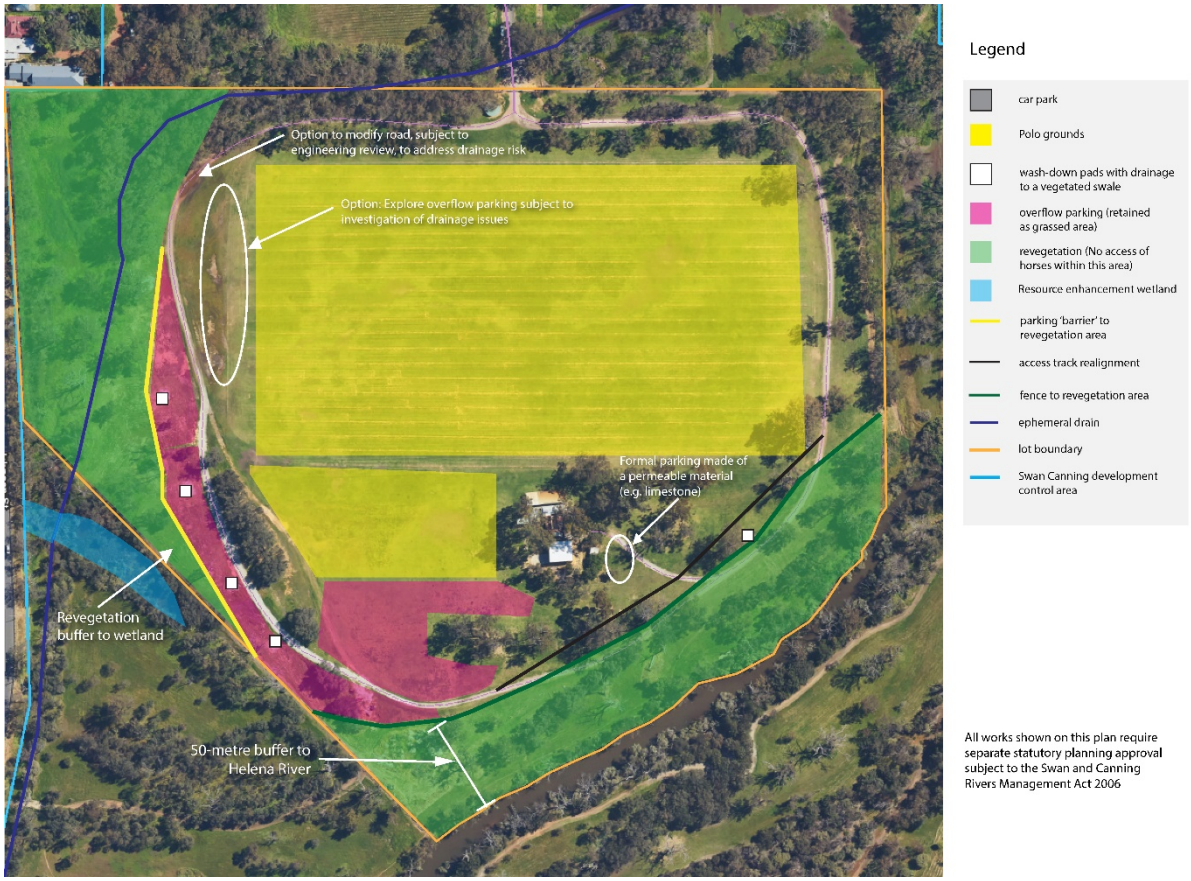
We will find out in October as to whether we are successful in the NRM Grant. If not, we will apply for other funding to do the same work. That will facilitate the production of the feasibility study incorporating the master plan for the whole area including the ecological enhancement. We will use the costing report to seek the resources to undertake the work in partnership with relevant interested parties and agencies.

Please see photos over the page showing indicative alignment. We will need to remove a cape lilac tree, an unhealthy river gum we planted and prune a couple of others to allow for truck access (with horses).

We will be planting trees to allow for additional shade to make up for any tie up lines we remove when we realign the track. We can't realign the track until we have enough shade.

We have fenced along the river to prevent horses from being too close to the river.

There is ample parking at Kings Meadow even on the busiest of days – refer to pink areas in figure below:



Parking at the Facility

We will create a carpark adjacent to the new building – see figure above. It will be made from the same material as the track, that is, permeable road base. Please note that although the diagram depicts the carpark overlaid on trees, **we will not be removing any trees nor permitting regular or permanent parking within 10m of the flooded gums.**

Two disabled parking bays will be located close to the access ramp.

Parking next to the trees planted by the Club

This issue is to do with the compaction of the ground and the threat to the roots of the flooded gum trees. The roots of these trees pull 70% of their water from the top 200mm of the ground.

Because of their high water- and nutrient-holding capacity, clay soils can be highly productive, but they are easily compacted. Compacting soils harms trees by decreasing the ability of their roots to take up water, oxygen, and nutrients.

To first establish if compaction is an issue, the Club will hire a penetrometer and measure the ground on the south west corner where no cars have been parked and compare these readings with the ground under the gum trees. If the ground is the same hardness, then compaction is not an issue.

If compaction is indicated, then steps should be taken to remediate the issue.
It should first be noted that significant soil compaction should generally be considered 'permanent'. Studies demonstrate that after one-half century, compaction still afflicts soils under natural forest conditions.

On their own, soils do not "come back" from compaction. The management of compacted areas should concentrate on moving forward to increased aeration space and reduced soil strength as much as possible, rather than trying to recover past ecological history.

Appendix 3. Site Options Comparisons for Kings Meadow

It is understood that the construction of new buildings adjacent to the rivers and waterways of the Swan and Canning Rivers is something the State Government is seeking to minimise based on both protecting the ecosystem and to allow unfettered access to valuable recreation resources.

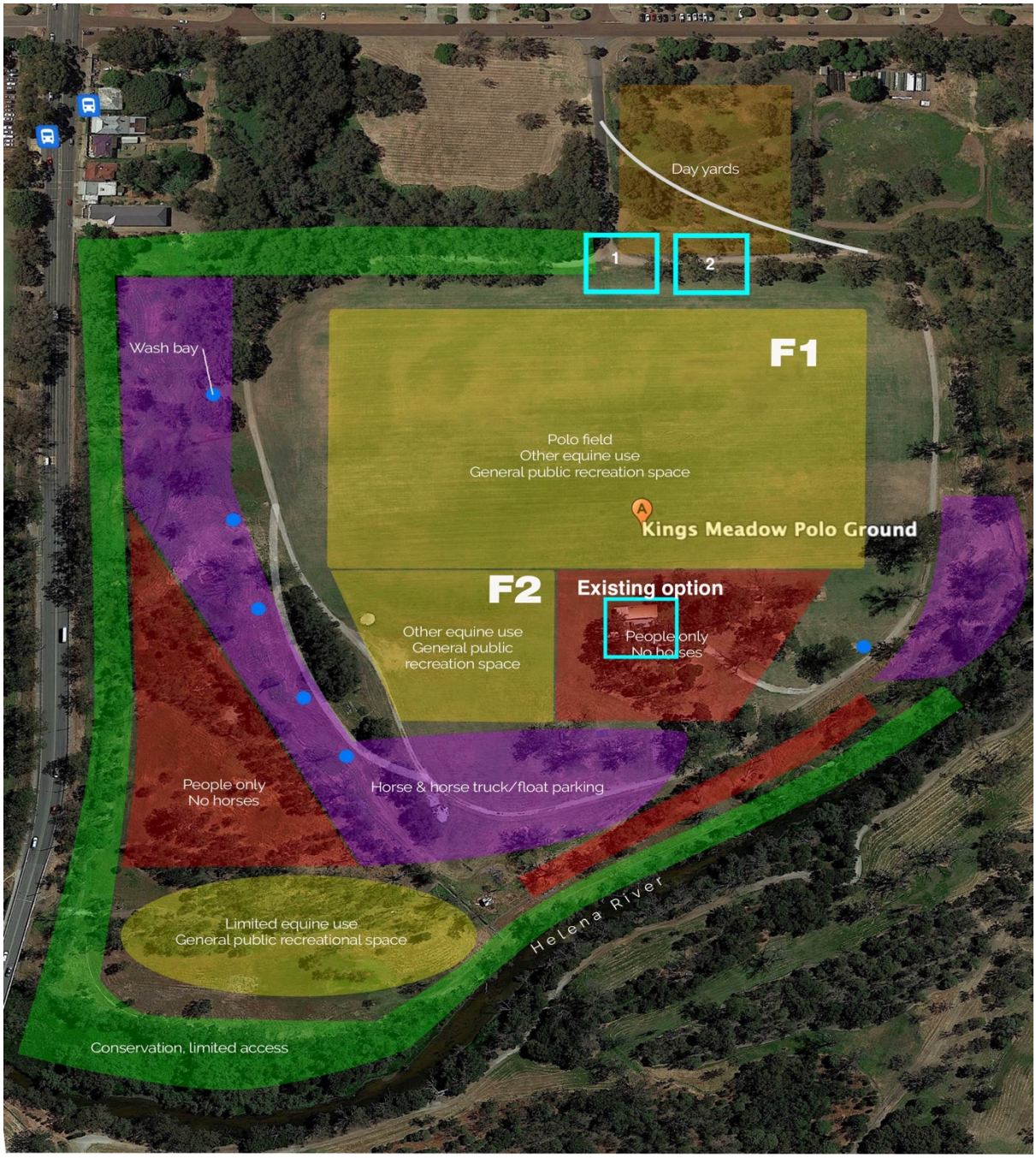
The information below provides a comparison of locating a $400,000 rebuild of a sporting pavilion for the Perth Polo Club on an existing site with that of two options on the other side of the field.

The existing site is 96 metres from the Helena River and is located on a mound constructed in 1974. The public have unrestricted access to the ground.

In 2019, the Club was granted funds from DLGSC to develop the safety and performance of the fields and to improve access and storage of machinery. This was part of a feasibility study from 2017 outlining a two-part strategy – Part 1 to improve the resilience of the surfaces and the second part to construct a new building. This has been part of the Club's plans since 2017 when it re-negotiated the lease with the City of Swan. The club presented its plans to Council in 2021.

The figure below shows the existing site (blue box) on the southern side of the ground and the options for the northern side highlighting the distance between Options 1/2 and Field 2.
It also depicts Meadow Street and access track realignment onto the ground.

The figure is used in the Recreation Environment Plan submitted to DBCA in January 2022 for comment prior to the Club submitting a Development Application to the City of Swan. The zones are discussed in that document and underpin a 20-year master plan that has been requested of the Club by the DBCA.


Day yards
1
2
F1
Wash bay
Polo field
Other equine use
General public recreation space
Kings Meadow Polo Ground
F2
Existing option
Other equine use
General public
recreation space
People only
No horses
People only
No horses
Horse & horse truck/float parking
Limited equine use
General public recreational space
Helena River
Conservation, limited access

New proposed Site 1

Option 1 Building Footprint Considerations:

Allowing for the mound and batters the site would be 36m x 36m by 1.4 high. This option is directly opposite the existing site and would require the following:

- A new mound constructed from a minimum 1814 cubic metres and compacted to Building Code Standards

- The risk to the existing Flooded Gums from dieback is heightened from the introduction of new building resource material (BRM). According to Best Practice Guidelines for Management of Phytophthora Dieback in the Basic Raw Materials Industries (DBCA 2021) there is no source to purchase dieback free BRM. Perth Polo Club has moved horses and heavy vehicles away from the flooded gums at the recommendation of Dr. Giles Hardy to mitigate risks to the 12 flooded gums at the ground

- The building cannot be built on stumps due to the high-water table (Refer D. Leadbetter) and the inability to secure footings rendering the building at risk of movement and therefore damage. It would be expected that COS would not approve a building licence for such an approach

- Removal of four power poles and the burying of the power to the new location.

- Removal of existing walls and gates

- Re-alignment of Meadow Street – this would require approval from the Minister for Planning to excise a small block and grant authority of it to COS to allow for it to be included in the Club's lease

- Removal and re-alignment of Telstra line

- Removal and re-alignment 100mm irrigation pipeline

- Removal and re-alignment potable water line

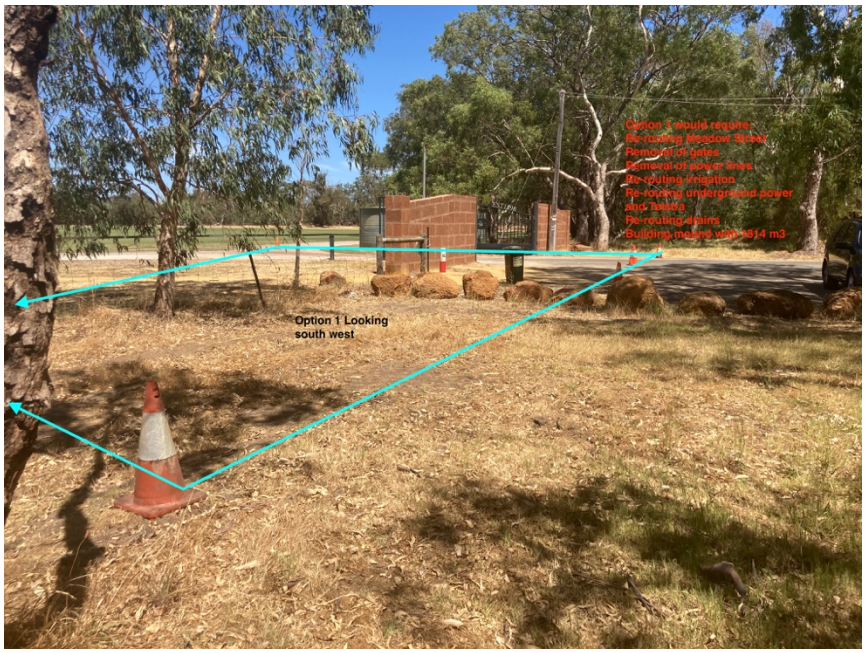
- Re-alignment of COS drain to the north and the west. The western drain is 4m from the western edge of the proposed new mound. The northern drain is 26m from the northern edge of the mound

- Re-alignment of the access track on Kings Meadow to ensure there is 8m wide access and egress for the site as per DFES regulations. The access track would have to come behind the new building and through the DPLH Block and require significant earthworks to contend with the drain running through it, the unstable ground and to cope with heaviest vehicles – dual axle semi with 20 horses – 13 tonnes.

The images below show Option 1. Please note images show distortion of distance – the areas are 36m x 36m

Option 1 – Looking to the west

Option 1 – Looking to the Southwest



Option 1 Safety Considerations:

Under the Federation of International Polo there is a minimum of 10m safety zone from the edge of the field of play to spectators. Perth Polo Club operates its fields with a 15m safety zone and this is part of our risk management and is conditional in our $20m Public Liability Policy with Affinity Brokers. The edge of the deck will be 15m from the field of play. There is an increased risk of injury to spectators, horses and riders from the close proximity and the congregating of people seeking shade to view the play. This option is already 4m outside our lease area and going further up Meadow Street would require additional cut and fill.

Option 1 Amenity, Access and View:

While Option 1 allows for a clear view of the polo on F1 it is 300m from F2 where the club has irrigated the field to run show jumping and other equine activity.

Show Jumping at Kings Meadow F2

The photo below shows the concentration of activity around the existing site. There is insufficient room to house marquis safely at Option 1 or Option 2.

Polo and Show Jumping Event at Kings Meadow
(Note distance from field)

The entrance will be heavily congested, and conflict will arise between people and vehicles while entering & exiting.

Event patron/visitor experience is diminished as there will be no sense of arrival towards the new pavilion which is seen as the focal point. That is, driving through the paddock to get to the farmhouse.

Perth Polo Club has moved horses and heavy vehicles away from the flooded gums at the recommendation of Dr. Giles Hardy to mitigate risks to the flooded gums at the ground and to provide shade to spectators and local community users of the ground – top left area of photo.

Option 2 Building Footprint Considerations:

Allowing for the mound and batters the site would also be 36m x 36m by 1.4 high. This option is further to the east placing it further away from the ideal viewing areas. It would require the following:

- A new mound constructed from a minimum 1814 cubic metres and compacted to Building Code Standards

- The risk to the existing Flooded Gums from dieback is heightened from the introduction of new building resource material (BRM). According to Best Practice Guidelines for Management of Phytophthora Dieback in the Basic Raw Materials Industries (DBCA 2021) there is no source to purchase dieback free BRM. Perth Polo Club has moved horses and heavy vehicles away from the flooded gums at the recommendation of Dr. Giles Hardy to mitigate risks to the 12 flooded gums at the ground

- The building cannot be built on stumps due to the high-water table (Refer D. Leadbetter) and the inability to secure footings rendering the building at risk of movement and therefore damage. It would be expected that COS would not approve a building licence for such an approach

- Re-alignment of COS drain to the north. The northern drain is 26m from the northern edge of the mound

- Re-alignment of the access track on Kings Meadow to ensure there is 8m wide access and egress for the site as per DFES regulations. The access track would have to come behind the new building and through the DPLH Block and require significant earthworks to contend with the drain running through it, the unstable ground and to cope with heaviest vehicles – dual axle semi with 20 horses – 13 tonnes.

- Removal of two flooded gums

Option 2 Safety Considerations:

Under the Federation of International Polo there is a minimum of 10m safety zone from the edge of the field of play to spectators. Perth Polo Club operates its fields with a 15m safety zone and this is part of our risk management and is conditional in our $20m Public Liability Policy with Affinity Brokers. The edge of the deck will be 15m from the field of play.

There is an increased risk of injury to spectators, horses and riders from the close proximity and the congregating of people seeking shade to view the play. Locating at this site will increase foot traffic behind the goal area – the safety zone behind the backlines is 27m. Horses are galloping in a straight line to goal and need this distance to pull up. Option 2 is close to the back corner of the field and would result in increase of spectator activity close to play.

Option 2 Amenity, Access and View:

While Option 2 does allow for a clear view of the polo on F1 it is 500m from F2 where the club has irrigated the field to run show jumping and other equine activity.

The entrance will be heavily congested & conflict will arise between people & vehicles entering & exiting.

Event patron/visitor experience is diminished as there will be no sense of arrival towards the new pavilion which is seen as the focal point. That is, driving thru the paddock to get to the farmhouse.

Option 2 – Looking to the northwest

Option 2 – Looking to the north

Existing Site

In July 2021, DLGSC approved a grant of $400,000 to build a modest pavilion. A stipulation from DBCA was that approval would not be given unless the club connected to sewer. The Club contracted McDowall Affleck to design and cost the system – this has been approved by the Water Corporation.

The existing site is the preferred option by the club because of the following reasons:

- Safer – people are a safe distance from the play
- Superior viewing performance of F1 and F2
- The new deck being proposed faces North which is advantageous during the winter.
- The building shields the deck from the strong south-westerlies.
- Traffic on and off the site is better during event days as the site progressively loads back towards the entrance gates starting from the southern end. Latecomers will cause no issues.
- Event patrons/visitors are able to venture down to the river – additional experience.
- Event patrons/visitors like to be adjacent to the behind the scenes action (where the horses are in the South-west corner of the site) – additional experience/feel part of the event.
- The location of the amenities for the riders, trainers etc suits as they are located adjacent to where the horses & floats are positioned at the south-west corner of the site.
- The pavilion at the southern end will be more impressive when lit up at night, as visitors/patrons drive in thru the entrance gates
- Proximity to other infrastructure
- Proximity to the horses and parking areas.
- Proximity to the non-horse area adjacent to existing site – as mentioned in page 4 Perth Polo Club has moved horses and heavy vehicles away from the flooded gums to provide shade to spectators and local community users of the ground. We irrigated this area.
- Vastly cheaper to build – we only have a budget of $400,000

Most people and equine activity are centred around the existing footprint. Developing a pavilion on the other side of the ground limits the recreational amenity of the ground.

Cost comparison

After seeking advice from Western Power, builders, excavation contractors and drainage consultants it is anticipated the new build on Option 1 (existing site) would be more than $1.1 million with Option 2 at $710,000.

The cost blowout with Option 1 centres on the need to remove and re-align existing services (power, water, communications) and road reserve. It is also impacted by the need to de-water and make stable the access to the ground at the back of the building on the DPLH block. The cost of the new mound is also a large factor.

While Option 2 does not have the same implications, its costs relate to access behind the building, the new mound and re-routing and improving the COS drain.

The existing site option (where the old pavilion is located) is expected to cost $400,000 without the sewer. Our initial drawings from the architect are being revised to better reflect our budget and desire for a modest, rural look sporting pavilion in keeping with the area.

The decision to build on the existing mound on the southern side of the ground was agreed to by DBCA based on the information included in this appendix.