Government of Western Australia
Department of Water and Environmental Regulation

Works Approval

Works approval number	W6890/2024/1
Works approval holder	Quanxin Pty Ltd
ACN	670 373 065
Registered business address	Suite 10, 8 Welshpool Road EAST VICTORIA PARK WA 6101
DWER file number	DER2024/000028
Duration	11/11/2024 to 10/11/2028
Date of issue	11/11/2024
Premises details	Xenon Recycle 14 Vinnicombe Drive CANNING VALE 6155 Legal description - Part of Lot 981 on Deposited Plan 410204 Certificate of Title Volume 2944 Folio 855

Prescribed premises category description **(Schedule 1, *Environmental Protection Regulations 1987*)**	**Assessed design capacity**
Category 57: Used tyre storage (general)	Up to 4,800 tyres at any one time
Category 61A: Solid waste facility	10,000 tonnes per annual period

This works approval is granted to the works approval holder, subject to the attached conditions, on 11 November 2024 by:

Melissa Chamberlain

Digitally signed by Melissa Chamberlain
Date: 2024.11.11 16:18:04 +08'00'

MANAGER WASTE INDUSTRIES
REGULATORY SERVICES
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Works approval history

Date	Reference number	Summary of changes
11/11/2024	W6890/2024/1	Works approval granted.

Interpretation

In this works approval:

(a) the words ‘including’, ‘includes’ and ‘include’ in conditions mean “including but not limited to”, and similar, as appropriate;

(b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

(c) where tables are used in a condition, each row in a table constitutes a separate condition;

(d) any reference to an Australian or other standard, guideline, or code of practice in this works approval:

(i) if dated, refers to that particular version; and

(ii) if not dated, refers to the latest version and therefore may be subject to change over time;

(e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and

(f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This works approval requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this works approval.

Works approval conditions

The works approval holder must ensure that the following conditions are complied with:

Fire and emergency management

1. The works approval holder must prepare, maintain and implement a Fire and Emergency Management Plan prepared by a suitably qualified fire management consultant that is consistent with Australian Standard AS 3745. The plan must include, but is not limited to:

(a) how fires will be prevented, detected, responded to, suppressed, contained and controlled for all approved activities, addressing all waste types and for all stages of the waste handling, sorting and storage process;

(b) in the event of a fire occurring at the premises, how impacts to the environment and human health will be mitigated;

(c) how offsite discharge of filtered firewater will be managed to ensure the stormwater retention basin does not overflow;

(d) how staff will be trained in fire and emergency response on an ongoing, annual basis;

(e) details on the firefighting equipment in place and/or accessible at the premises and the fire response capabilities and responsibilities;

(f) a premises map displayed at the front of the premises depicting after hours contact details, plus the location and layout of:

(i) fire hose reels, hydrants, sprinklers and isolation points;

(ii) electrical isolation points;

(iii) sub-surface drainage infrastructure, including details on flow direction and off-site discharge locations (if applicable);

(iv) system shutdown points; and

(v) fire response access points to the premises;

(g) hazmat manifest displayed at front of the premises; and

(h) notification procedures for fire and major spill incidents.

Construction phase

Infrastructure and equipment

2. The works approval holder must:

(a) construct and/or install the infrastructure and equipment;

(b) in accordance with the corresponding design and construction / installation requirements; and

(c) at the corresponding infrastructure location

as set out in Table 1.

Table 1: Design and construction / installation requirements

	Infrastructure and equipment	Design and construction / installation requirements	Infrastructure location
1.	External waste tyre receival and storage area	a) Bitumen hardstand to be free of leaks and defects. b) Concrete bunding must be installed around the internal perimeter of the premises to ensure surface water is able to be contained. c) A minimum of 3 fire hydrant outlets to be installed in accordance with AS 2419.1 d) Signage at the front of the premises is to be maintained with up to date information for first responders. e) Site access points are to be kept clear and maintained to ensure adequate access by emergency response vehicles.	As shown in Schedule 1, Figure 2 and Figure 3
2.	Warehouse	a) Concrete floor to be free of leaks and defects, to ensure a permeability of ≤1x10^{-9} m/sec. b) Must contain a minimum of 2 fire hose reels installed in accordance with AS 2419.1 c) West roller door must be able to be closed during operation of tyre shredding and de-beading equipment.	As shown in Schedule 1, Figure 2 and Figure 3
3.	Awning area	a) Bitumen hardstand to be free of leaks and defects, to ensure a permeability of ≤1x10^{-9} m/sec.	As shown in Schedule 1, Figure 2
4.	Tyre shredder	a) Must be located inside the warehouse only.	As shown in Schedule 1, Figure 2
5.	Tyre de-beader	a) Must be located inside the warehouse only.	
6.	Conveyors	a) Must be located inside the warehouse and awning area only.	
7.	Shipping container area	a) Bitumen hardstand to be free of leaks and defects. b) Contain a 40 ft sea container.	As shown in Schedule 1, Figure 2
8.	Fire water storage	a) A minimum water storage volume of 432,000 L must be provided for the fire hydrant system to operate a peak flow rate of 10 L per second at all hydrants simultaneously for a minimum of four hours.	As shown in Schedule 1, Figure 3
9.	Stormwater management and containment	a) The premises hardstand and surface water drainage system must provide a minimum containment volume of 432,000 L to contain contaminated water runoff. b) Isolation valves must be installed on the sub-surface collection pits/pipework to enable the fire control system to isolate contaminated water from entering the soakage pits when a fire is detected.	As shown in Schedule 1, Figure 3

Compliance reporting

3. The works approval holder must within 30 calendar days of an item of infrastructure or equipment required by condition 2 being constructed and/or installed:

(a) undertake an audit of their compliance with the requirements of condition 2; and

(b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.

4. The Environmental Compliance Report required by condition 3, must include as a minimum the following:

(a) certification by a suitably qualified person that the items of infrastructure or component(s) thereof, as specified in condition 2, have been constructed in accordance with the relevant requirements specified in condition 2;

(b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 2; and

(c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Time limited operations phase

Commencement and duration

5. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 2 where;

(a) the Fire and Emergency Management Plan required by condition 1 has been submitted by the works approval holder to the CEO; and

(b) the Environmental Compliance Report as required by condition 3 has been submitted by the works approval holder for that item of infrastructure.

6. The works approval holder may conduct time limited operations for an item of infrastructure specified in conditions 2 and 7:

(a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 5 for that item of infrastructure; or

(b) until such time as a licence for that item of infrastructure is granted in accordance with Part V of the *Environmental Protection Act 1986*, if one is granted before the end of the period specified in condition 6(a).

Infrastructure and equipment

7. During time-limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 2 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 2.

Table 2: Infrastructure and equipment requirements during time limited operations

	Site infrastructure and equipment	Operational requirement	Infrastructure location
1.	External waste tyre receival and storage area	a) The bitumen hardstand and perimeter bunding must be maintained free of leaks and defects.	As specified in Schedule 1, Figure 2

	Site infrastructure and equipment	Operational requirement	Infrastructure location
2.	Warehouse and awning area	a) Concrete and bitumen hardstands must be maintained free of leaks and defects. b) Must be secure at all times to prevent unauthorised access to the building from persons not employed on the premises. c) Western roller door of the warehouse must be closed during operation of the shredder and de-beader.	As specified in Schedule 1, Figure 2
3.	Equipment used for processing waste tyres (including shredder and de-beader)	a) Must only be housed and operated inside the warehouse on the premises. b) Must be operated in a manner that ensures noise emissions comply with the *Environmental Protection (Noise) Regulations 1997.*	As specified in Schedule 1, Figure 2
4.	All on-site stormwater management and containment	a) Isolation valves on sub-surface collection pits and pipework must be maintained and operated to isolate contaminated water from entering the soakage pits when a fire is detected.	As shown in Schedule 1, Figure 3
5.	All on-site fire management and prevention equipment	a) All on-site fire management and prevention equipment to be stored so access is not impeded by infrastructure or equipment used in site operations; and b) All on-site fire management and prevention equipment must be maintained and in good working order at all times.	As specified in Schedule 1, Figure 3

Waste acceptance

8. During time-limited operations, the works approval holder must only allow waste to be accepted onto the premises if:

(a) it is of a type listed in Table 3;

(b) the quantity accepted is below any limit listed in Table 3; and

(c) it meets any specification listed in Table 3.

Table 3: Waste acceptance

Waste type	Quantity limit	Specification[1,2]
Used tyres	Up to 10,000 tonnes per annual period	a) Whole, unburnt passenger tyres only. b) Must not allow the number of used tyres on the premises to exceed 4,800 tyres at any one time.

Note 1: Additional requirements for the acceptance of controlled waste (including tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004.*

Note 2: Additional requirements for calculating the number of used tyres are set out in the *Environmental Protection Regulations 1987.*

Waste processing

9. During time-limited operations, the works approval holder must ensure that the waste types specified in Table 4 are only subjected to the corresponding process(es), subject to the corresponding process limits and/or specifications.

Table 4: Waste processing

Waste type	Process(es)	Process limits and/or specifications[1]
Used tyres	Receipt, handling, shredding, de-beading and storage	a) No more than 4,800 used tyres may be stored on the premises at any one time. b) No more than 10,000 tonnes of used tyres per annual period may be processed at the premises. c) External storage of used tyres must be at the locations shown in Schedule 1 Figure 2 and stored in accordance with GN02 as follows: (i) Tyre stacks must be separated from each other by a distance of 1.5 m; (ii) Tyre stacks heights must not exceed 3.7 m; and (iii) Tyre stacks must maintain a separation distance of 18 m from the eastern site boundary. d) All shredded and crumbed used tyres outside of shipping containers must be stored in accordance with GN02 as follows: (i) Must be stored within the warehouse and/or awning area; (ii) If bulk bags are used the shredded and crumbed tyres must be stored no deeper than 3 m; (iii) Must be free of tyre remains subjected to fire, oil, grease, petrol and diesel fuels, fibrous organic matter or other material that could create a fire hazard; and (iv) A minimum of 3 m is to be maintained from internal building walls. e) Tyres must not be shredded smaller than 100 mm.

Note 1: Additional requirements for calculating the number of used tyres are set out in the *Environmental Protection Regulations 1987*.

Fire and emergency management

10. The works approval holder must ensure the fire and emergency management requirements in Table 5 are complied with in the event of a fire.

Table 5: Fire and emergency management requirements

Requirement for		Fire and emergency management requirements
1.	Fire management	a) The size of stockpiles of recycled material (tyre crumb) that could cause a fire hazard must be minimised. b) A sufficient number of fire hoses on the premises must be provided such that all areas of the premises can be reached. c) Ensure that any fire on the premises is extinguished as soon as possible.

Requirement for		Fire and emergency management requirements
2.	Firewater containment	a) Firewater that may result at the premises from fire-fighting activities must be: (i) contained on the premises within the capacity of hardstand and low permeability infrastructure. (ii) does not escape to the premises' stormwater system, adjacent premises or exposed soil areas; and b) The containment capacity for firewater must be calculated with the fire hydrant flow rates prescribed in Australian Standard AS 2419.1: (i) for all fully-enclosed structures; and (ii) individually for each outside hardstand and low permeability catchment area. c) The containment capacity for firewater must be permanent or achieved automatically when the fire system is activated on the premises. d) Bunding must be available to prevent firewater from entering the onsite soak well system. e) Arrangements must exist for the removal of firewater, in excess of the containment capacity, by a carrier licensed under the *Environmental Protection (Controlled Waste) Regulations 2004*, to ensure firewater does not discharge to the environment.
3.	Notifications[1]	a) The works approval holder must immediately notify the CEO of: (i) any fire on the premises; and (ii) any accident, malfunction, or emergency which results or could result in the discharge of fire-fighting wash water or other wastes from the premises.

Note 1: Notification requirements may include advising the Department of Fire and Emergency Services, Western Australian Police, Ambulance Services, the Department of Water and Environmental Regulation and neighbouring premises.

Monitoring during time limited operations

11. The works approval holder must undertake the monitoring specified in Table 6 during time limited operations.

Table 6: Monitoring of inputs and outputs during time limited operations

Inputs and outputs	Parameter	Averaging period	Frequency
Used tyres	tonnes	Annual period	Each load entering and leaving the premises
	Number of used tyres on the premises[1]	N/A	

Note 1: Additional requirements for calculating the number of used tyres are set out in the *Environmental Protection Regulations 1987.*

Compliance reporting

12. The works approval holder must submit to the CEO a report on the time limited operations within 30 calendar days of the completion date of time limited operations or 90 calendar days before the expiration date of the works approval, whichever is the sooner.

13. The works approval holder must ensure the report required by condition 12 includes the following:

(a) a summary of the time limited operations, including timeframes and amount of waste processed;

(b) a summary of monitoring results obtained during time limited operations under condition 11;

(c) a review of performance and compliance against the conditions of the works approval; and

(d) where the manufacturer's design specifications and the conditions of this works approval have not been met, what measures will the works approval holder take to meet them, and what timeframes will be required to implement those measures.

Records and reporting (general)

14. The works approval holder must record the following information in relation to complaints received by the works approval holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:

(a) the name and contact details of the complainant, (if provided);

(b) the time and date of the complaint;

(c) the complete details of the complaint and any other concerns or other issues raised; and

(d) the complete details and dates of any action taken by the works approval holder to investigate or respond to any complaint.

15. The works approval holder must maintain accurate and auditable books including the following records, information, reports, and data required by this works approval:

(a) the Fire and Emergency Management Plan required by condition 1;

(b) the works conducted in accordance with condition 2;

(c) any maintenance of infrastructure that is performed in the course of complying with conditions 2 and 7;

(d) notifications in accordance with condition 10;

(e) monitoring programmes undertaken in accordance with condition 11; and

(f) complaints received under condition 14.

16. The books specified under condition 15 must:

(a) be legible;

(b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;

(c) be retained by the works approval holder for the duration of the works approval; and

(d) be available to be produced to an inspector or the CEO as required.

Definitions

In this works approval, the terms in Table 7 have the meanings defined.

Table 7: Definitions

Term	Definition
Australian Standard AS 2419.1	means Standards Australia *AS 2419.1 Fire hydrant installations Part 1: System design, installation and commissioning*
Australian Standard AS 3745	means Standards Australia *AS 3745 Planning for emergencies in facilities*
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
Department	means the department established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V Division 3 of the EP Act.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
EP Act	*Environmental Protection Act 1986* (WA).
EP Regulations	*Environmental Protection Regulations 1987* (WA).
Fire and Emergency Management Plan	means a Fire and Emergency Management Plan that meets the requirements specified in condition 1 of this works approval
fire management consultant	means a person who: (a) has a minimum of five years of experience working in a supervisory area of fire control system design, installation and commissioning; and (b) is employed by an independent third party external to the works approval holder's business; or is otherwise approved in writing by the CEO to act in this capacity.
firewater	means water that, in the event of a fire, has been used to extinguish a fire, and all materials and combusting products dissolved or suspended within such water, and includes other fire suppressant substances such as foams.

Term	Definition
GN02	Means the Department of Fire and Emergency Services *Guidance Note:GN02 Bulk Storage of Rubber Tyres Including Shredded and Crumbed Tyres*.
premises	the premises to which this works approval applies, as specified at the front of this works approval and as shown on the premises map (Figure 1) in Schedule 1 to this works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
stack	relating to tyre storage, refers to a grouping of tyres not exceeding 3.7m in height, 60m^2 in area and/or 12.5 tonnes in weight.
suitably qualified engineer	means a person who: a) holds a Bachelor of Engineering recognised by Engineers Australia; and b) has a minimum of five years of experience working in a supervisory area of civil or structural engineering; c) is employed by an independent third party external to the Works Approval Holder's business; or is otherwise approved in writing by the CEO to act in this capacity.
time-limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.
waste	has the same meaning given to that term under the EP Act.
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.
works approval holder	refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval.

END OF CONDITIONS

Schedule 1: Maps

Premises map

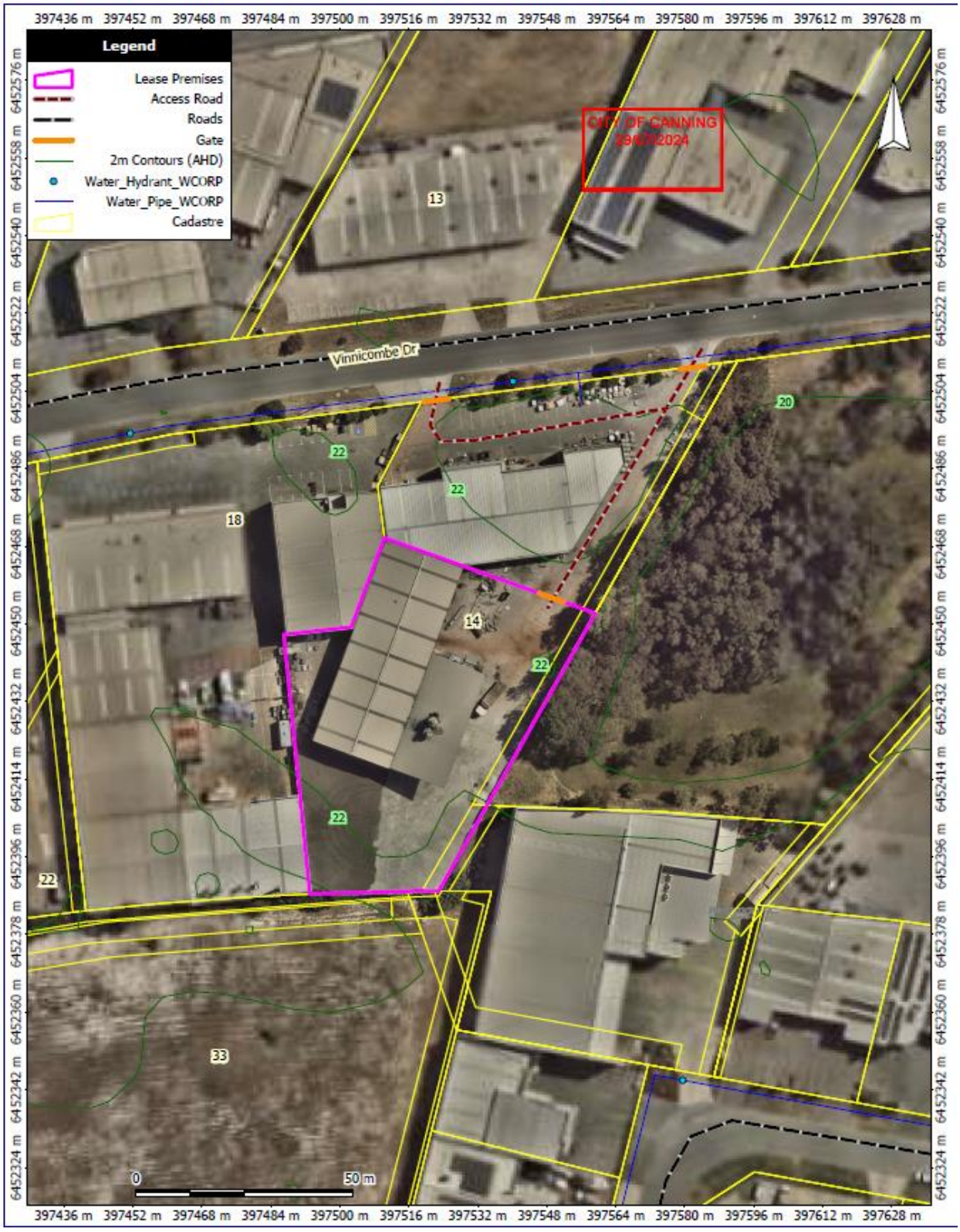

Figure 1: Map of the premises boundary

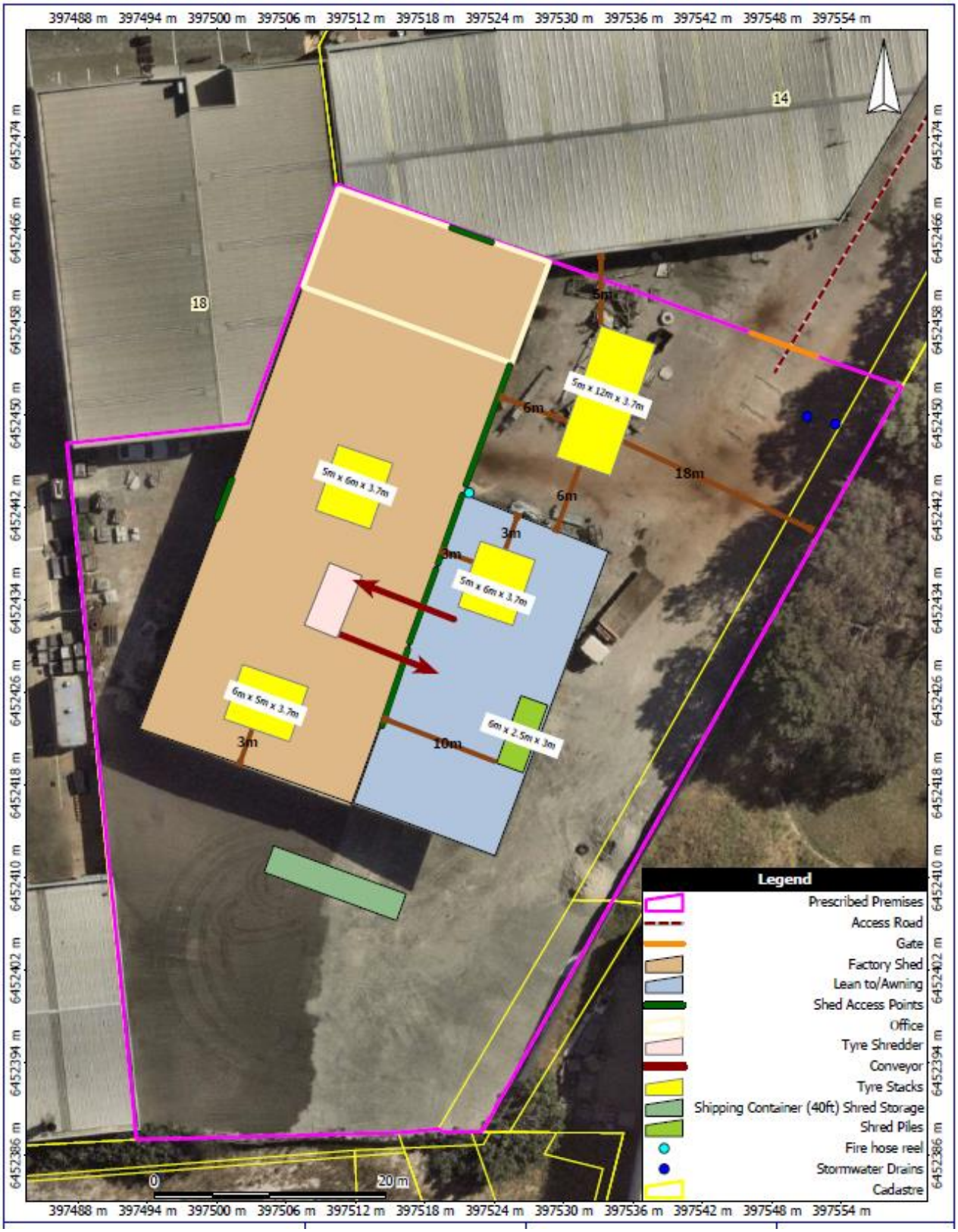

Figure 2: Site layout

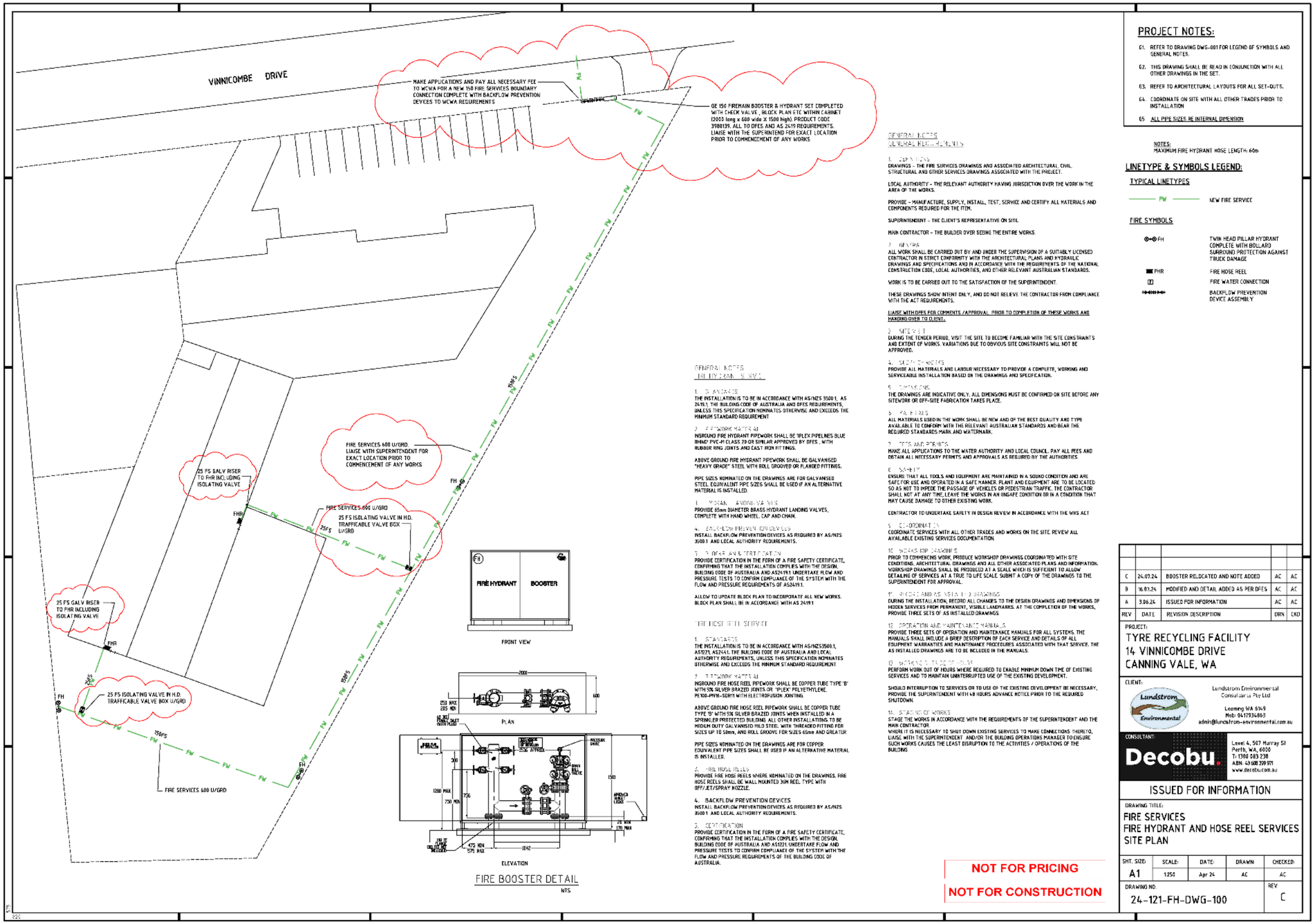

Figure 3: Layout of the proposed fire and emergency equipment location