LOTS 947 AND 948 (53) PELLEW ROAD KENDENUP - CONCRETE BATCHING PLANT

Location Plan
Application for Development Approval (as advertised)
Summary of Submissions
DWER – Decision Report and Summary
DWER Works Approval

Meeting Date: 2 August 2022

Number of Pages: 33

IntraMaps

Location Plan – Lots 947 and 948 Pellew Road, Kendenup

N

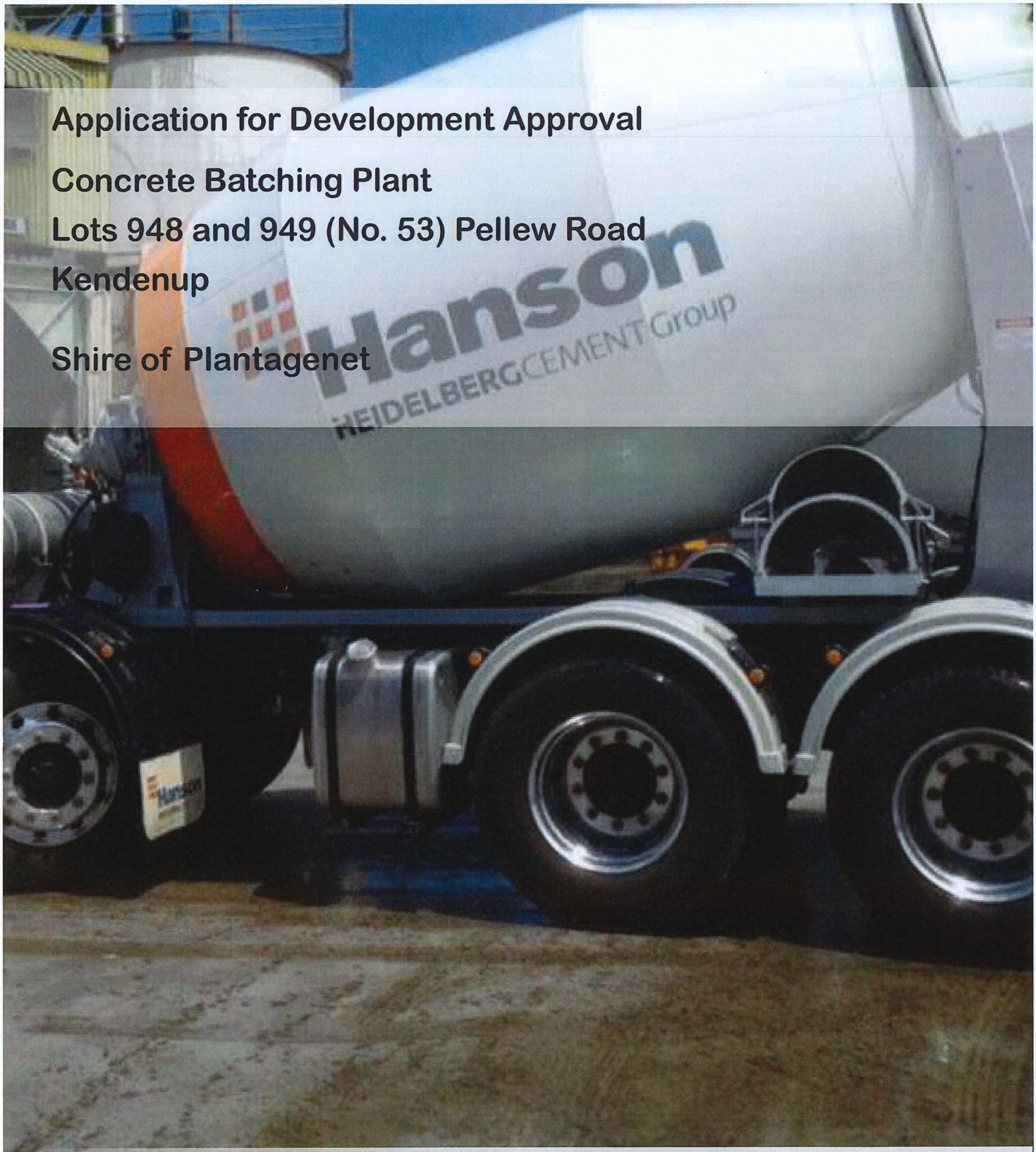
Application for Development Approval

Concrete Batching Plant

Lots 948 and 949 (No. 53) Pellew Road

Kendenup

Shire of Plantagenet



Prepared for: Hanson Construction Materials Pty Ltd

Prepared by: Allerding and Associates

MAY 2022

Allerding & Associates
Town Planners, Advocates and Subdivision Designers
ABN 24 044 036 646

125 Hamersley Road, Subiaco WA 6008
T: (08) 9382 3000 F: (08) 9382 3005 W: allerdingassoc.com

1.0 INTRODUCTION

Hanson Construction Materials Pty Ltd (**Hanson**) is the landowner of the existing hard rock quarry located in Lots 947, 948 (No. 53), 949, 950 and 2097 Pellew Street in Kendenup. Hard rock has been extracted on site for over 30 years. Hanson now seeks planning approval for the installation of a concrete batching plant which is proposed to be located on Lot 947 with the proposed landscaped earth bund extending over Lots 947 and 948 Pellew Road (**Site** or **Subject Site**). The concrete batching plant will use hard rock aggregates extracted from the quarry which will be blended with other raw materials to produce concrete.

The Site is located approximately 14km north east of the Mount Barker townsite and 65km north east of Albany. A location plan for the Subject Site is included as **Figure 2** while **Figure 3** shows an aerial photograph of the site. The Site connects via Carbarup Road and Woogenellup Road to Mount Barker and via Albany Highway to the south and via Carbarup Road and Watt Roads to Kendenup to the north. The Site is therefore well placed to supply concrete as a key construction material for the engineering and construction industries within Mount Barker and its surrounds. This application seeks to install a batching plant on the Subject Site which will operate as needed to meet local demand for the product, with an expected annual output not exceeding 20,000 tonnes or approximately 10,000m^3.

There is a significant environmental rationale for the installation of the concrete batching plant in the proposed location as it will:

- Utilise aggregates sourced from the adjacent quarry thereby substantially reducing the costs and carbon emissions of having hard rock aggregates delivered by trucks from more distant quarries;
- Provide concrete for the local market, again reducing costs and carbon emissions. Currently concrete trucks travel from Hanson's concrete plant in Albany to deliver concrete to Mount Barker.

The plant will also generate economic and community benefits to the locality through the reduction in transport costs, which will in turn help to maintain concrete and construction costs at a lower level. Overall, the reduced carbon footprint, accessibility to major roads and proximity to the local market will provide sound environmental and community contributions to the locality.

2.0 BACKGROUND

The Hanson Mount Barker hard rock quarry has operated from the Subject Site since the 1980s with extraction progressing across Lots 948, 949, 950, 2097 and Lot 947. The operations were undertaken under lease agreement, firstly by Great Southern Concrete and Sand until the lease was purchased by Pioneer Concrete who in turn were taken over by Hanson. In 2016 Hanson purchased the land on which the quarry is located as well as a number of surrounding lots to the north and east for the extraction of hard rock. This had the additional benefit of securing the buffer distances required by the Department of Water and Environmental Regulation (**DWER**) in terms of dust, noise and risk.

The quarry is relatively compact and is integrated on site with an onsite crushing plant, site office and workshop. Hanson now seeks planning approval for a concrete batching plant which will operate on an intermittent basis as needed, to meet local demand for the final product. The concrete batching plant will use aggregates sourced from the quarry which will be blended with the other materials to produce concrete.

Before Hanson commenced operations at the Mount Barker Quarry in 2003, a concrete batching plant operated on site. This concrete plant was decommissioned; however, the plant infrastructure remains on site. The decommissioned plant infrastructure will be removed from site with the exception of the vertical silo which will be relocated to the proposed concrete batching plant location, approximately 430m to the south east. The remaining plant infrastructure will be reused at another Hanson site. The proposed new batching plant will be located to the south east of the quarry as depicted in **Figures 1** and **3** and **Annexure 3**.

3.0 SITE DETAILS

3.1 Subject Site

The Site is located on a multi lot title. Particulars of the lots which, all combined comprise Hanson's operational area, are described in **Table 1**, noting that the concrete batching plant is proposed to be located on Lot 947 with the proposed landscaping bund extending over both Lots 947 and 948 only (shown in bold).

Table 1 – Lot Details

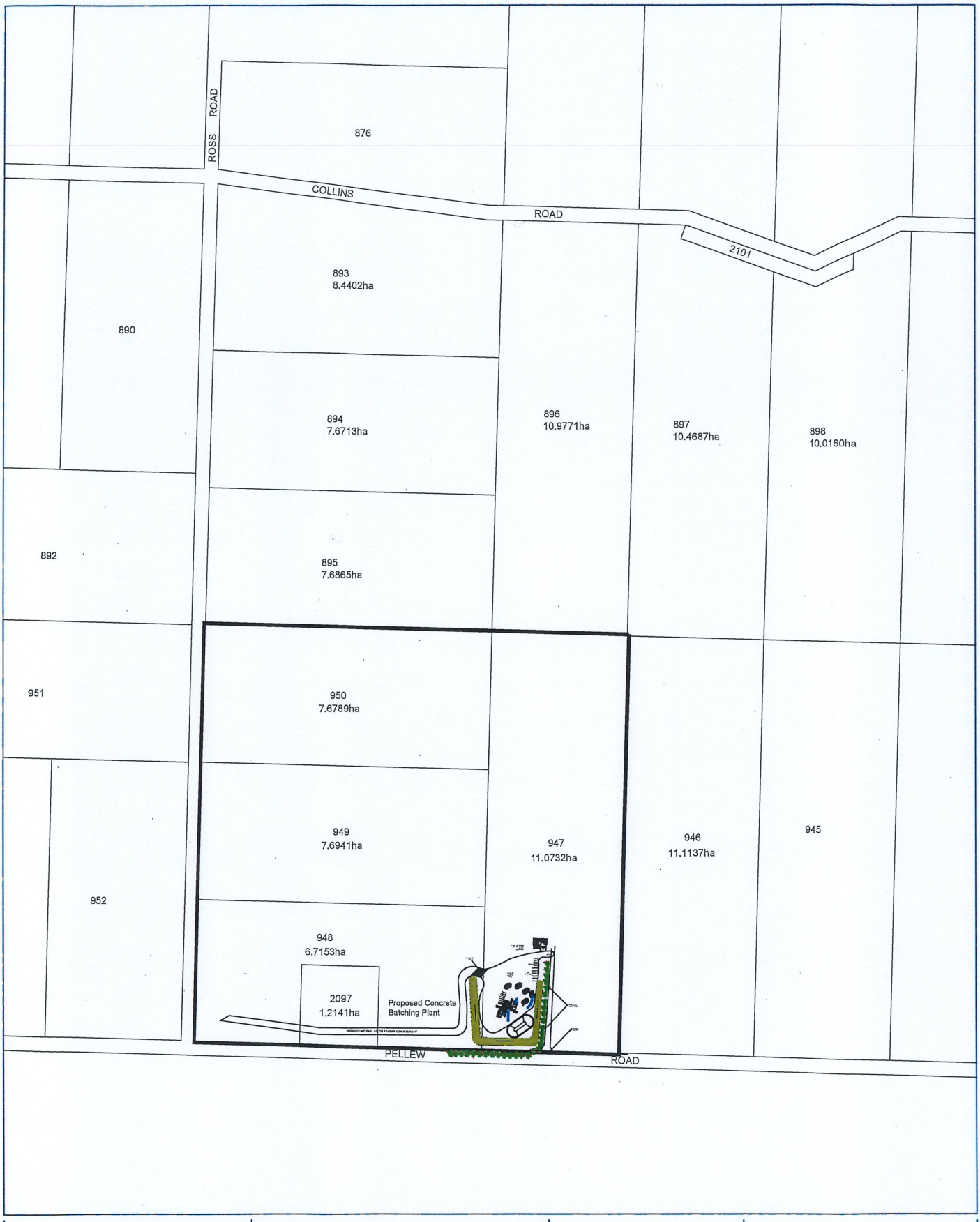
Lot Number	House Number	Plan	Volume	Folio
947	**101**	**4694**	**2917**	**488**
948	**53**	**4694**	**2917**	**488**
949	-	4694	2917	488
950	-	4694	2917	488
2987	-	4694	2917	488

A copy of the multi-Lot title which includes lots 947, 948, 949, 950 and 2987 is included in **Annexure 2**.

3.2 Location and Context

The Subject Site is located in Pellew Road in Kendenup, which is 14 km north east of Mount Barker, 9km south east of Kendenup and 65km north east of Albany (refer to **Figure 2** for a Location Plan).

The Subject Site is predominantly surrounded by rural farmland. Vehicle access to the Site will be undertaken via an existing crossover to the Mount Barker quarry from Pellew Road as depicted in **Figure 3**. Pellew Road is a constructed sealed road between the access to the site and Carbarup Road. Once on site, vehicles will enter the concrete batching plant using the quarry's internal roads.



SITE PLAN

LOTS 947-950 & 2097 PELLEW ROAD
KENDENUP (MT BARKER)

SHIRE OF PLANTAGENET

0 50 100 150 200 250 300 350m

SCALE: 1:5000
ORIGINAL PLAN SIZE: A3

JOB CODE:
HAN KEN DA

DATE:
06.04.2022

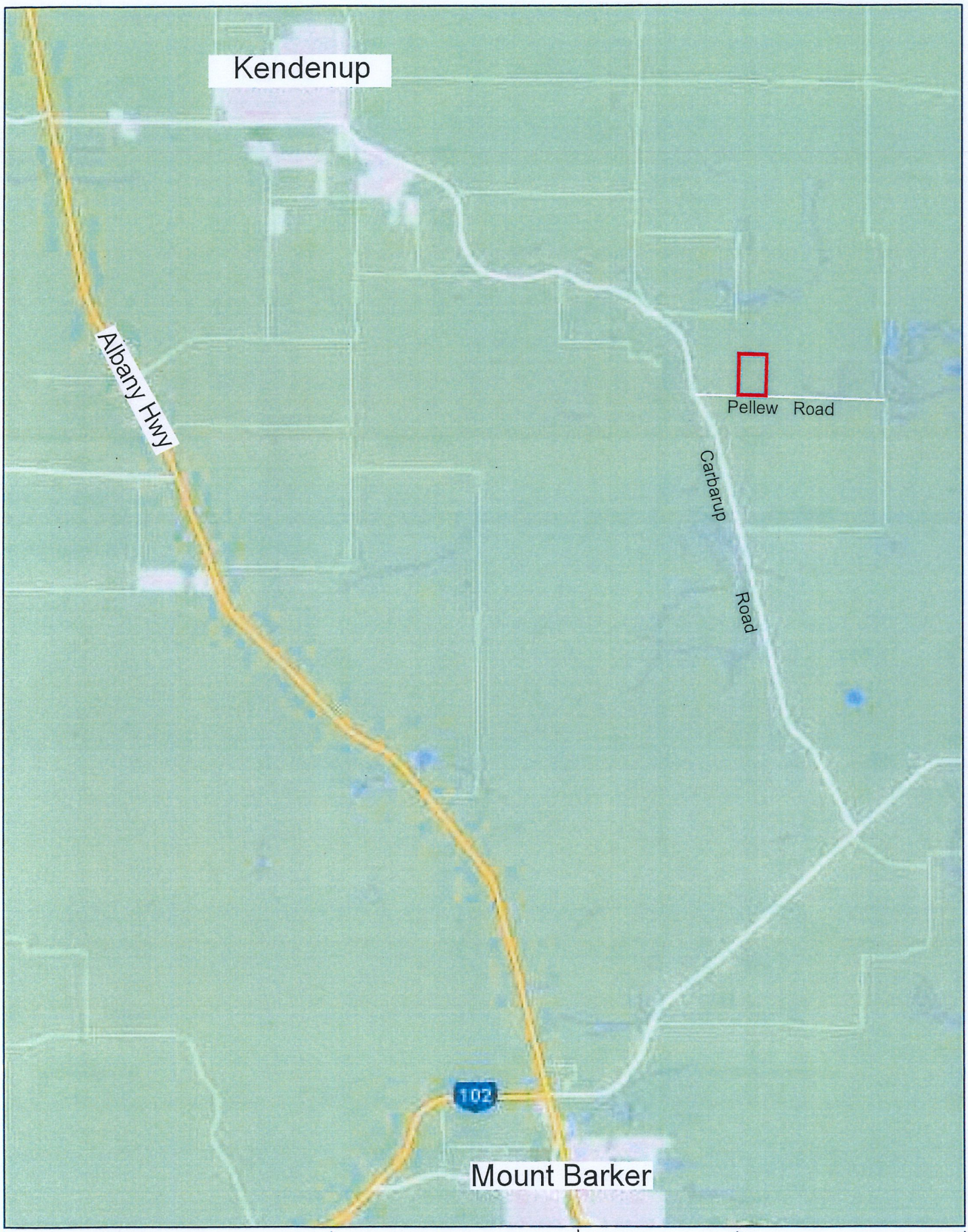
LEGEND:

SUBJECT LAND -

Allerding & Associates
Town Planners, Advocates and Subdivision Designers

125 Hamersley Road, Subiaco WA 6008
T: (08) 9382 3000 IF: (08) 9382 3005 IW: allerdingassoc.com

Figure 1: Site Plan



LOCATION PLAN

948-950 & 2097 PELLEW ROAD
KENDENUP (MT BARKER)

SHIRE OF PLANTAGENET

0 0.5 1 1.5 2 2.5 3km

SCALE: 1:70 000
ORIGINAL PLAN SIZE: A4

JOB CODE:
HAN KEN DA

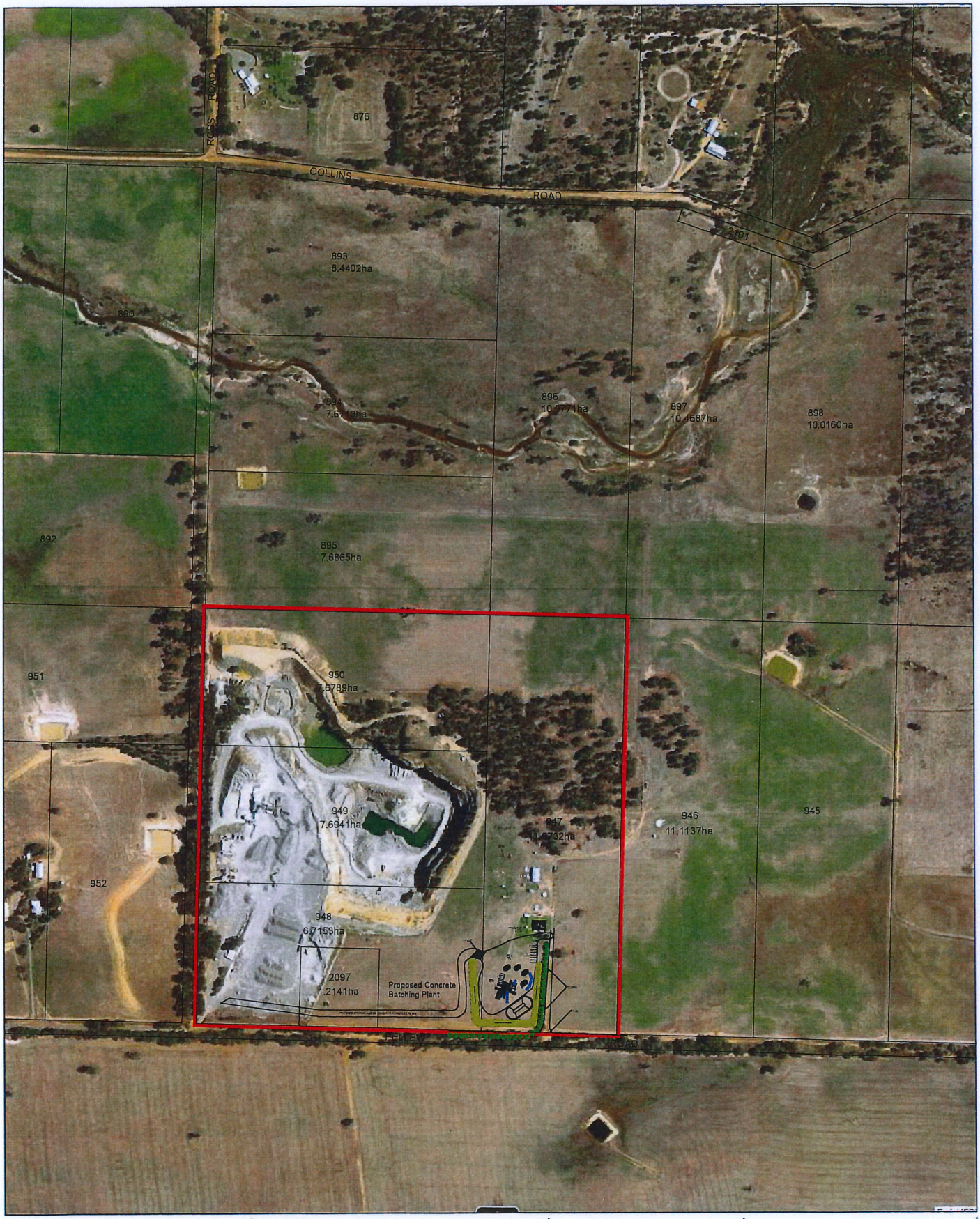
DATE:
26.07.2021

LEGEND:

SUBJECT LAND -

Allerding & Associates
Town Planners, Advocates and Subdivision Designers

125 Hamersley Road, Subiaco WA 6008
T: (08) 9382 3000 E: reception@allerdingassoc.com| W: allerdingassoc.com



AERIAL PHOTO

947-950 & 2097 PELLEW ROAD
KENDENUP (MT BARKER)

SHIRE OF PLANTAGENET

0 50 100 150 200 250 300 350m

SCALE: 1:5000
ORIGINAL PLAN SIZE: A3

JOB CODE:
HAN KEN DA

DATE:
06.04.2022

LEGEND:

SUBJECT LAND -

Allerding & Associates
Town Planners, Advocates and Subdivision Designers

125 Hamersley Road, Subiaco WA 6008
T: (08) 9382 3000 IF: (08) 9382 3005 IW: allerdingassoc.com

Figure 3: Aerial Photo

Matters to be considered	Comment
iv. public utility services; *v. storage management and collection of waste;* *vi. access for pedestrians and cyclists (including end of trip storage, toilet, and shower facilities);* *vii. access by older people and people with disability;*	Access to required public utilities is available and details of waste management is described in Section 4.4 of this report. Waste from the concrete batching operations will be stored on site and reused or taken off site to an approved facility.
v) the potential loss of any community service or benefit resulting from the development other than potential loss that may result from economic competition between new and existing businesses;	No loss of any community service or benefit is anticipated as a result of the development, but positive elements are anticipated through the provision of a local supply of concrete in a sustainable and cost effective manner.
w) the history of the site where the development is to be located	The development will be located on the site of the Mount Barker Quarry which has operated as a hard rock extractive industry for over 30 years and has previously conducted batching plant operations.
x) the impact of the development on the community as a whole notwithstanding the impact of the development on particular individuals;	The development will provide an important raw material for construction which will meet the growing demand for the product and the development anticipated under the Shire's Local Planning Strategy
y) any submissions received on the application;	To be announced.
za) the comments or submissions received from any authority consulted under clause 66;	To be announced
zb) any other planning consideration the local government considers appropriate;	None relevant

8.0 CONCLUSION

On behalf of Hanson Construction Pty Ltd we seek Council's support for the installation of a batching plant at Lots 948and 949 (No 53) Pellew Road, Kendenup.

The proposal is both capable and appropriate for approval noting that:

- The proposal follows the intent of the local planning framework and is designed to operate in accordance with State environmental legislation;
- The proposed operation will be essential in the supply of concrete for the construction needs identified in the Shire of Plantagenet's Local Planning Strategy;
- The proposal ensures the establishment of a batching plant operation which supports the development of Kendenup, Mount Barker and the surrounding locality through the provision of concrete for the construction industry and government infrastructure;
- The Site is well suited to supplying premixed concrete to the local market given its linkages to an established and proposed transport network;
- The management, efficiency and operations of the proposed plant represent the latest practices in sustainability and environmental management;
- Any off-site impacts to sensitive land uses arising from the establishment of the proposed batching plant are considered acceptable given compliance with generic separation distance requirements, the intermittent nature of the operation, the earth bund and the management practices proposed that will significantly mitigate any environmental impacts associated with noise, dust, and wastewater treatment;
- The Mount Barker hard rock quarry has been operating from its established location since the 1980s and will provide aggregates as an input to the concrete productions process. This will overcome the need to procure aggregates from offsite sources, significantly reducing transport costs and carbon emissions from delivery trucks. Similarly, the provision of locally produced concrete will replace the current practice of delivering concrete from Albany. This will again reduce transport costs and help to maintain constructions costs at a lower level.

We therefore seek Council's favourable consideration and support of this proposal to enable approval for the installation of the proposed batching plant.

Summary of Submissions
Lot 947 and 948 Pellew Road, Kendenup

	Name	Submission	Comment
1.	Water Corporation	The Corporation has no concerns with the application proceeding.	Noted.
2.	DPIRD - Agriculture Resource Management and Assessment Sustainability and Biosecurity	Thank you for the opportunity to comment on the above proposal at Pellew Road, Mount Barker. The Department of Primary Industries and Regional Development does not object to the concrete batching plant at the abovementioned lots as it is associated with the hard rock quarry currently in operation at this site.	Noted.
3.	B Mitchell	In regards to the proposal for a concrete batching plant at Pellew rd Kendenup, Firstly, I would like to say that we support this proposal, however do have some concerns and queries regarding it.	
		Hours of operation. we would like to see confirmed hours of operation as proposal is vague. Current operations at quarry are sometimes outside of the stated operating hours.	Noted. The general hours of operation are Monday-Friday 5am to 5pm. Saturday 5am to 12pm. The applicant has stated that they use the plant outside of these hours occasionally and less than usual during periods of reduced demand.
		Carbarup road deterioration. This is our major concern. The increase in truck movements to and from the quarry over the years is having a detrimental effect on this road. Now with a proposal to increase heavy vehicles it can only get worse. We have noticed various markings for repairs that don't seem to get completed and a major survey, but not much actual work. Does the council have a plan for the upgrade of Carbarup Road?	Supported – the Shire has become aware that the Carbarup Road section near the intersection with Pellew Road is deteriorating and will condition that this road along Pellew Road be upgraded.
		Preliminary works already started?	Noted. Shire officers have visited the site and can confirm that earthworks have commenced at the site.
		McDonald Ave batching plant?	Noted. The McDonald batching plant operates at a lower scale than that of the proposed new plant and will possibly be dealing with different customers.
		Thank you for the chance to comment on this proposal, all other concerns seem to be well covered in application.	
4.	G Chittleborough and G Grinham	Our main concern with this proposal at Lots 947 and 948 Pellew Rd, Kendenup is Carbarup Rd. This road is substandard and with the increase of trucks it is only going to become worse. Approaching trucks cause you to pull onto the gravel and in certain area there are drop offs from the bitumen. The road needs to be widened if more trucks are going to be on it.	Noted. The Shire's Executive Works and Services Manager will need to consider whether widening of the road is necessary.

		We are at 85 Hope Valley View and the dust is constant. Will the concrete batching plant create more?? It is a continuous cleaning job to remove the dust as it is. Our roof is covered in dust and as we rely on rain water this ends up in our tanks.	Noted. These concerns are best directed to the Department of Water and Environmental Regulation on 9841 0100 as they assess the proponent's works approval application. They are also responsible for ensuring compliance with the Environmental Protection (Concrete Batching and Cement Protect Manufacturing) Regulations 1998.
		Also, the noise is constant. Early starts from 5.30 to 6 am.	
		We are not against progress in any way and industry and employment is fantastic for the area but would like these issues to be addressed.	
5.	R Wood	My concerns with the proposal are as follows. 1. Hours of operation are not listed in the notice received. This goes to noise levels especially when there is a southerly wind, or no wind. There is already a significant noise problem particularly when the crusher is used at the quarry	Noted. It is an offence under the Environmental Protection Act to alter the nature and/or volume of any emissions, unless done so in accordance with a works approval or licence or registration (for operation) is held for the premises.
		2. Cement dust is much finer and as such could be carried by the wind. How is that proposed to be managed?	
		I would like to hear from you regarding these points.	
6.	Tony Simons	The subject application covers the building and operation of a batching plant at the existing quarry operated by Hanson in Kendenup. Operation of the proposed concrete batching plant requires the trucking in, handling, storage and use of bulk cement and sand.	
		The introduction of bulk transportation cement and sand into the rural environment requires special consideration.	Noted. Concerns regarding potential pollution are managed and responded to by the Department of Water and Environmental Regulation. They manage this through their works approval and registration process.
		It is noted that the application includes an Environment Impact Assessment by RPS Group (AU213001926.001). Some of the comments and statements in this report have raised some concerns and further questions. These are detailed in Table 1 and Table 2 below.	
		General comments and context Cement and sand dust is a known health and environmental hazard.	
		Breathing in the dust can have serious negative health impacts. However, in this rural environment it should also be noted that many of the homes (if not all) in the vicinity of the proposed batching plant, harvest rainwater for domestic consumption.	

		Any escape of sand or cement dust therefore poses a risk to people in the vicinity from both being breathed in, and also from ingestion via contaminated roofs and domestic water storage tanks. It is feasible that such contamination of drinking water poses a long-term health risk, if not detected and addressed.	
		Comments provided in the tables below therefore focus on the risks associated with prevention and mitigation of dust spread to the local environment.	
		Given the limited time and my perception of lower risk, other operations of the proposed batching plant including water collection, recycling and stormwater management and other waste handling risks are not addressed.	
		The suggestions and comments look for the provision of additional engineering defences to improve prevention and mitigation risk reduction measures, and for some additional administration defences.	
		Suggested additional Engineered Defences – Prevention - Ensure truck deliveries conform to recommended codes of practice	
		- 3-sided storage bays for sand, with shade cloth roofs and appropriate sand storage management	
		- Fully enclosed conveyor	
		Suggested additional engineered defences – Mitigation - Weather monitoring – with defined operational limits based on relevant risk-based assessment.	
		- Automated particulate monitoring in the surrounding homes and farms, with appropriate operator transparency	
		- Routine sampling of harvested rainwater used for domestic purposes in local area (within agreed radius) and with appropriate operator transparency with the sharing of results.	
		Suggested additional administration controls - Emergency Response Plan (ERP) to address loss of containment of a bulk cement delivery during transportation in the local roads	
		- ERP to address decontamination of harvested rainwater catchment and storage tanks in the event of a loss of containment event or if sampling indicates contamination of harmful substances from batching plant operations.	
		The additional road traffic of the delivery trucks and the agitator trucks is also a concern, with: - with additional large agitator trucks passing through Kendenup town centre to service work sites to the North and West	
		- the current design (narrow) and condition (poor) of Carbarup Road.	
		It would be expected the increase in road traffic is monitored and upgrades undertaken, in a timely manner, where risks are identified.	
		Some of the suggested defences will increase capital expenditure – probably by only a small amount.	
		Other defences will add ongoing cost to operations. Again, hopefully by only a small amount – some local residents may be prepared to share some of these costs. It is hoped this would encourage a closer collaboration with the site operators and local residents (not that I know of any current issues).	
		It should be noted that I have already included dual 5-micron filters in the drinking water from our tank which provides further engineered defences for any particulate contamination. This is ineffective for any dissolved toxins.	

		Thank you for your consideration. I trust this submission is useful and would appreciate response detailing the outcome in due course.	
7.	Department of Water and Environmental Regulation (preliminary comments) 17 June 2022	With respect to the community submission to the Shire's development application, the letter raises concerns primarily with respect to potential impacts from dust. The department's risk assessment of the works approval application will include potential impacts from dust and air emissions and whether the proposal will comply with the Environmental Protection (Concrete Batching and Cement Protect Manufacturing) Regulations 1998 (the regulations) once constructed. If a works approval is granted, ongoing operations will be subject to compliance with the regulations which contains a number of requirements around the management air emissions, including dust control.	Noted.
	Department of Water and Environmental Regulation (subsequent comments) 7 July 2022	Thank you for providing the proposal for the Department of Water and Environmental Regulation (Department) to consider. Environmental licensing Based on the information provided, the proposed operations will be categorised as Prescribed Premises as per Schedule 1 of the Environmental Protection Regulations 1987: 77 Concrete batching or cement products manufacturing: premises on which cement products or concrete are manufactured for use at places other than those premises. 100 tonnes or more per year The Environmental Protection Act 1986 makes it an offence to undertake any work which causes a premises to become, or become capable of being, a Prescribed Premises unless the work is undertaken in accordance with a works approval. It is also an offence under the EP Act to alter the nature and/or volume of any emissions, unless done so in accordance with a works approval or licence or a registration (for operation) is held for the premises. The Department has received and is currently assessing the Works Approval application for this proposed. Our assessment has considered the proposal against the minimum requirements set out in the Environmental Protection (Concrete Batching and Cement Products Manufacturing) Regulations 1998. Controls have been imposed on the works approval to address any identified shortcomings and to ensure compliance with the regulations. The application will also need to demonstrate compliance with the Environmental Protection (Noise) Regulations 1997 and Environmental Protection (Unauthorised Discharges) Regulations 2004.	Noted.

Government of Western Australia
Department of Water and Environmental Regulation

Decision Report

Application for works approval

Division 3, Part V of the *Environmental Protection Act 1986*

Works approval number	W6663/2022/1
Applicant	Hanson Construction Materials Pty Ltd
ACN	009 679 734
DWER file number	DER2021/000597
Premises	Mt Barker Quarry 101 Pellew Road KENDENUP WA 6323
Date of report	13 July 2022
Status of report	Final

1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of the premises. As a result of this assessment, works approval W6663/2022/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this decision report, the delegated officer has considered and given due regard to its regulatory framework and relevant policy documents which are available at https://dwer.wa.gov.au/regulatory-documents.

2.2 Application summary and overview of premises

Background

On 4 March 2022, Hanson Construction Materials Pty Ltd (the applicant) applied for a works approval under section 54 of the *Environmental Protection Act 1986* to construct and operate a concrete batching plant adjacent to its existing hard rock quarry in Kendenup, near Mount Barker.

Historically, and prior to the applicant operating the hard rock quarry in 2003, there was an operational concrete batching plant within the quarry site. This plant was decommissioned; however, the plant infrastructure has remained in place, including a decommissioned vertical cement silo, which will be relocated and used as part of this proposal.

The premises relates to prescribed premises category 77: concrete batching and cement products manufacture, with an assessed production capacity of 20,000 tonnes per year under Schedule 1 of the Environmental Protection Regulations 1987.

The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W6663/2022/1.

Existing concrete facilities

The proposed batching plant site is about 430 m to the southeast of the existing quarry and comprises an existing concrete hardstand area. A U-shaped screening bund has already been constructed to partially screen and to mitigate noise, dust and visual amenity impacts from the proposed concrete batching operations.

A stormwater catchment basin has also already been constructed to the southeast of the proposed plant site, to collect stormwater runoff from non-process areas.

The area has been historically cleared; therefore, no clearing is required.

Proposed works

As most of the infrastructure required for the proposed concrete batching plant operations already exists, the remaining infrastructure to be constructed will involve:

- dropping and relocating the existing decommissioned vertical cement silo into place on the existing hardstand area, and constructing associated load ramp and load out bay ramp;
- constructing a subsurface wedge pit, washout pits, bunded admixture storage areas, and loading gantry slump stand; and
- installing water storage tanks, a container batch control room and genset onto the site.

3. Consultation

The application was advertised for public comment on the department's website during April 2022. No public submissions were received in the timeframe specified.

3.1 Other relevant approvals

Planning approval

The Shire of Plantagenet has received a development application for the proposed batching plant and has advised it has received a submission from a local resident with concerns about potential impacts from dust.

The application is currently being assessed and is yet to have been determined.

4. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk Assessments* (DWER 2020).

To establish a risk event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

4.1 Source-pathways and receptors

Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and operation which have been considered in this decision report are detailed in Table 1 below. Table 1 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 1: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Lowering and re-lifting the vertical silo into place. Installing storage tanks and container batch control room and gen set on site. Construction of the subsurface wedge pit, washout pit and bunded admixture storage area.	Air / windborne pathway	Water truck during construction of earthworks and on roads if required. Sprinklers and misters are available for use on roads. Operation to cease if wind strong enough to negate dust control measures
Noise			Construction will be short term and take place between 7am and 5pm weekdays. The separation distance sufficient to prevent noise from construction impacting sensitive receptors.
Operation			
Dust	Delivery of raw materials, batching of concrete, slumping and vehicle washdown facility	Air / windborne pathway	Dust suppression sprays at loading point Concrete areas kept clean by hosing or sweeping Cement is delivered is a sealed tanker with pneumatic discharge Silo is fitted with a fabric filter dust

Emission	Sources	Potential pathways	Proposed controls
			collector and exhaust is ducted within 1 metre of the ground Fabric filter is auto cleaned at end of each filling cycle Cement weigh hoppers are totally enclosed and vented to fabric filter dust collector. Conveyors and transfer points enclosed Sprinklers on stockpiles
Noise		Air / windborne pathway	Sand and cement deliveries in normal operating hours 7am to 5 pm. 3.5 m high screening bund has been constructed on the site perimeter to west, south and east. Genset to be enclosed
Contaminated water run-off		Direct discharge	Separate runoff from potentially contaminated catchment from the remainder of the site Capture of potentially contaminated runoff for recycling to concrete batching activities.

Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020), the delegated officer has excluded the applicant's employees, visitors, and contractors from its assessment. Protection of these parties often involves different exposure risks and prevention strategies and is provided for under other state legislation.

Table 2 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises *(Guideline: Environmental Siting* (DWER 2020)).

Table 2: Sensitive receptors

Human receptors	Distance from prescribed activity
Closest residential dwelling	620 m west of batching plant
Environmental receptors	**Distance from prescribed activity**
TEC – eucalyptus woodland of Western Australian wheat belt	on the same cadastral lot about 400 m from proposed batching plant

4.2 Concrete Batching Regulations

An appraisal of the proposal against the infrastructure requirements of the Environmental Protection (Concrete Batching and Cement Products Manufacturing) Regulations 1998 is summarised in Table 3.

Table 3: Comparison with Concrete Batching Regulations

Infrastructure requirement of regulations	Applicant control
An operator must not carry on concrete batching or cement product manufacturing unless it is carried on in such a manner that no visible dust escapes from the premises (or if there are no defined boundaries to	Concrete areas will be kept clean by hosing or sweeping.

the premises, no such dust escapes onto any place to which the public has access).	Cement will be delivered in sealed tanker with pneumatic discharge.
An operator must ensure that all parts of the premises to which vehicles have access — a) are either — i. paved or sealed; or ii. treated with water or surfactants as often as is necessary; and b) are swept, hosed or otherwise cleared of any loose aggregate, sand, cement, concrete or other material as often as is necessary, to prevent loose material adhering to vehicles and to minimize dust.	All operational areas on the premises are concrete or compacted roadbase hardstand. Concrete areas will be kept clean by hosing or sweeping. Sprinklers and water truck will be available for unsealed roads.
An operator must not allow any vehicles carrying concrete, or any of the ingredients of concrete, to leave the premises until it has been washed free of cement slurry and dust.	Agitator trucks will be washed in the wash pit and cleaned of cement slurry and dust before leaving the premises.
An operator must store all aggregate and sand kept on the premises in storage bins or bays which are designed to minimize airborne dust, or where the use of such bins or bays is not practicable, in stockpiles on the ground.	Aggregate and sand will be kept in stockpiles with sprinklers and sprays to prevent dust lift off.
Where aggregate or sand is stored in a stockpile on the ground the operator must keep it covered or damp, or otherwise treat it, so as to minimise airborne dust.	
If, during the unloading of aggregate or sand, any visible dust escapes from the premises the operator must ensure that unloading stops immediately and does not resume until appropriate measures have been taken to prevent the escape of the dust from the premises.	Aggregate and sand stockpiles will be located at the northern end of the premises, as far as practicable away from Pellow Rd. A 3.5 m high screening bund is in place to help prevent dust escaping beyond the premises boundary.
An operator must store all cement kept on the premises — a) in bags; or b) in a cement storage silo — i. which complies with subregulation (2); or ii. which is one of a series of interconnected silos at least one of which complies with subregulation (2).	Cement silo is fitted with fabric filter dust collector and the exhaust dust is ducted to within 1 metre of the ground. The silo is fitted with high level sensor, visual and audible alarms and automatic cut-off valves. The fabric filter has auto-cleaning at end of each filling cycle.
To comply with this subregulation a cement storage silo must be fitted with — a) an air cleaning system, which complies with regulation 7, through which all air extracted from the silo while it is being filled must pass before it is discharged into the environment; and b) either — i. a level indicator which complies with regulation 8(1); or	

ii. a relief valve, which complies with regulation 8(3).	
The air cleaning system for a cement storage silo must — a) be either — i. a mechanical rapping air cleaning system with a minimum filter area of 23 square metres; or ii. a reverse pulse air cleaning system which reduces dust emissions to less than 50 milligrams of particulate matter per cubic metre; and b) discharge air from the system into a weigh hopper or to an outlet which is within one metre of the ground.	Reverse pulse dust filter air cleaning system fitted to silo.
A level indicator system for a cement storage silo must include — a) an audible alarm which sounds if cement stored in the silo reaches — i. 0.6 m below the inlet to the silo's air cleaning system; or ii. 2 tonnes less than the silo's maximum capacity; and b) a test circuit which indicates whether the level indicator and alarm are working correctly.	The silo is fitted with high level sensor, visual and audible alarms and automatic cut-off valves. Cement silo is fitted with fabric filter dust collector and the exhaust dust is ducted to within 1 metre of the ground.
A relief valve for a cement storage silo must be designed — a) to automatically prevent the level of cement in the silo rising above the level referred to in subregulation (1)(a)(i) or (ii); and b) so that any excess cement is piped into a weigh hopper or to an outlet which is within one metre of the ground.	
An operator must not use — a) a hopper, conveyor, chute, bucket elevator or transfer point to move material on the premises; or b) any area of the premises to load agitators, unless it is – c) enclosed; d) fitted with wind shields, water sprays or a dust extraction system; or e) otherwise designed and operated, so as to prevent the escape of any visible dust.	Conveyors fitted with windshields and transfer points have misting sprays.
An operator must ensure that — a) all water draining off any area where agitators, mixers or moulds are loaded or where concrete is batched drains into a slurry pit;	Concrete silt trap to separate water from aggregate and for reuse. Wash water from concrete washout bunker drains to silt trap.

b) all water used to wash out agitators, mixers or moulds or to clean up spilt material drains into a slurry pit; c) all other water draining off sealed or paved areas of the premises and which is likely to contain waste material drains into a slurry pit or settling pond; and d) any water removed from, or which might overflow from, a slurry pit drains into a settling pond.	Wedge pit and agitator truck wash out bay No process wastewater is discharged from the site. This water will be recycled for use in the concrete batching process.
An operator must ensure that no water used in concrete batching or cement product manufacturing is discharged from the premises until — a) it has been — i. through a silt trap; or ii. contained in a settling pond for long enough to allow all particulate matter to settle out; and b) if the water is likely to contain hydrocarbons, it has been through an oil interceptor.	
An operator must not allow settled material in a slurry pit to — a) dry out (except when the pit is dried out to allow the settled material to be removed); or b) be higher than 30 cm below the top of the slurry pit walls.	Concrete silt trap to separate water from aggregate and for reuse Surface water run-off from the road base surfaces in non-process areas will be graded to a single drainage basin located to the south-east of the plant. An automated transfer pump will be installed in the basin to reclaim the water for plant / quarry use and manage the greater than 100-year ARI events. Excess water will be pumped to the quarry pit. It is not anticipated that any surface water will be discharged from the quarry into the environment
An operator must ensure that all waste created during concrete batching or cement product manufacturing (including material removed from slurry pits, settling ponds, silt traps and oil interceptors) is — a) recycled; or b) disposed of at an appropriate landfill site or waste treatment facility the occupier of which holds a licence under Part V of the Act in respect of that site or facility.	Solids from the concrete wedge pits will be collected and recycled or disposed of off-site. Water is pumped form the silt trap into the recycled water tank for reuse in the batching process.

4.3 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in Section 4.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in Section 4.1),

these have been considered when determining the final risk rating. Where the delegated officer considers the applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 4.

Works approval W6663/2022/1 that accompanies this decision report authorises construction of the concrete batching plant. The conditions in the issued works approval, as outlined in Table 4 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 4: Risk assessment of potential emissions and discharges from the premises during construction and operation

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Reasoning
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
Construction								
Lowering and re-lifting the vertical silo into place. Installing storage tanks and container batch control room and gen set on site. Construction of the subsurface wedge pit, washout pit and bunded admixture storage area.	Dust	Air / windborne pathway causing impacts to health and amenity	Residence 620m west	Refer to Section 3.1	C = Minor L = Rare **Low Risk**	Y	NA	There is sufficient separation in place (620 m to nearest dwelling). Short duration of works. Noise and dust levels are not expected to differ significantly from existing quarry operations during construction works.
	Noise			Refer to Section 3.1	C = Minor L = Rare **Low Risk**	Y	NA	
Operation								
Delivery of raw materials, batching of concrete, slumping and vehicle washdown facility	Noise	Air / windborne pathway causing impacts to health and amenity	Residence 620m west	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 1	There is sufficient separation in place (620 m to nearest dwelling). U-shaped screening bund in place to mitigate noise levels. Day time operations only (no night time operations). Noise levels are expected to comply with the Noise Regulations.
	Dust	Air / windborne pathway causing impacts to health and amenity	Residence 620m west. Residences in area use rainwater collection for primary water supply	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 1	Proposed dust and water management controls comply with the requirements of the Concrete Batching Regulations. Condition 1 of the works approval will impose infrastructure controls to ensure the operations comply with the minimum requirements set out in the Concrete Batching Regulations. Stormwater run-off collected in sump at south east of premises and transferred to quarry pit, if required.
	Sediment laden stormwater	Overland runoff potentially causing ecosystem disturbance or impacting surface water quality	Surrounding land or council road and drain infrastructure	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	Condition 1	

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk Assessments* (DWER 2020).

Note 2: Proposed applicant controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

5. Decision

The delegated officer has determined the proposal to construct and operate a concrete batching plant, with an assessed throughput of 20,000 tonnes per year, does not pose an unacceptable risk of impacts to public health and the environment. This determination is based on the following:

- the location of the premises, being adjacent to the applicant's existing hard rock quarry with sufficient separation to sensitive human and environmental receptors;
- the proposed scale and nature of the operations, which will only be used to meet the local demand for concrete products (i.e., plant is likely to sit idle for extended periods); and
- most of the infrastructure required for the proposed operations is already in existing and in place.

To minimise the potential for impacts to human health and the environment, the applicant has proposed the following engineering controls, which will be imposed on the works approval as they are critical for maintaining an acceptable level of risk:

- cement storage silo will be installed with dust controls that comply with the requirements set out in the Concrete Batching Regulations, to minimise fugitive dust impacts;
- infrastructure will be constructed to manage stormwater and wash water in accordance with the requirements set out in the Concrete Batching Regulations; and
- a 3.5 m high screening bund has been constructed to partially screen and to mitigate noise, dust and visual amenity impacts from the proposed concrete batching operations.

The delegated officer is satisfied the above controls lower the overall risk profile of the premises, and adequately addresses the potential for unacceptable impacts to public health and the environment.

Works approval and registration

Works Approval W6663/2022/1 that accompanies this report authorises construction works only. The conditions in the issued works approval, as outlined in the above risk table have been determined in accordance with the *Guidance Statement: Setting Conditions* (DER 2015).

A registration is required for ongoing operation of the batching plant following construction. The applicant is advised to ensure it firstly complies with the compliance reporting requirements of the works approval, prior to commencing operations.

Ongoing operations will be subject to the requirements set out in the Concrete Batching Regulations.

Applicant comments on draft decision

The applicant was provided with drafts of the works approval and this report on 22 June 2022 and waived the consultation period with no additional comments.

6. Conclusion

Based on the assessment in this decision report, the delegated officer has determined that a works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

MANAGER, PROCESS INDUSTRIES
REGULATORY SERVICES

Delegated officer
under section 20 of the Environmental Protection Act 1986

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia

Government of Western Australia
Department of Water and Environmental Regulation

Works Approval

Works approval number	W6663/2022/1
Works approval holder	Hanson Construction Materials Pty Ltd
ACN	009 679 734
Registered business address	Level 10, 35 Clarence Street SYDNEY NSW 2000
DWER file number	DER2021/000597
Duration	14/07/2022 to 13/07/2025
Date of issue	13/07/2022
Premises details	Mt Barker Quarry 101 Pellew Road KENDENUP WA 6323 Legal description – Lots 947 & 948 on Plan 4694 As shown in the premises map in Schedule 1

Prescribed premises category description (Schedule 1, Environmental Protection Regulations 1987)	Assessed production capacity
Category 77: Concrete batching or cement products manufacturing: premises on which cement products or concrete are manufactured for use at places or premises other than those premises.	20,000 tonnes per annual period

This works approval is granted to the works approval holder, subject to the attached conditions, on 13/07/2022, by:

Daniel Hartnup

Digitally signed by Daniel Hartnup
Date: 2022.07.13 10:47:54 +08'00'

Daniel Hartnup
A/MANAGER, PROCESS 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
13/07/2022	W6663/2022/1	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:

Construction phase

Infrastructure and equipment

1. The works approval holder must:

(a) construct the infrastructure;
(b) in accordance with the corresponding design and construction requirements; and
(c) at the corresponding infrastructure location,

as set out in Table 1.

Table 1: Design and construction requirements

	Infrastructure	Design and construction requirements	Infrastructure location
1.	100 tonne cement silo	Cement silo must be fitted with: • a relief valve which is piped to a weigh hopper or outlet within one metre of the ground to prevent overfilling; • a level indicator with an audible high level alarm which sounds if cement reaches 0.6 m below the inlet to the silo's air cleaning system; • a test circuit which indicates whether the level indicator and alarm are operating correctly;	Silo in Schedule 1 Figure 3

	Infrastructure	Design and construction requirements	Infrastructure location
		• a pressure differential devise to detect blockages and holes in filters • a reverse pulse air cleaning system which is designed to reduce dust emissions to less than 50 milligrams of particulate matter per cubic metre; and • ducting which discharges air from the cement silo air cleaning system to within one metre of the ground.	
2.	Aggregate hopper	Aggregate and sand feed hopper must be enclosed or fitted with wind shields, water sprays or a dust extraction system designed to prevent escape of visible dust.	Aggregate hopper Schedule 1 Figure 3
3.	Conveyors	Conveyors and transfer points must be enclosed	Schedule 1 Figure 3
4.	Stockpiles	Stockpiles must have sprinklers capable of wetting the whole of the stockpile.	Stockpiles Schedule 1 Figure 2
5.	Wedge pit and wash down pits	Constructed of concrete	Schedule 1 Figure 3
6.	Hardstand	Graded to ensure potentially contaminated water is captured and recycled.	Schedule 1 Figure 2
7.	Screening bund	The bund must: • be at least 3.5 metres high • surround the batching plant on the west, south and east • be vegetated or otherwise treated to prevent dust lift-off.	Schedule 1 Figure 2

Compliance reporting

2. The works approval holder must within 28 calendar days of the infrastructure specified in condition 1 being constructed:

(a) undertake an audit of their compliance with the requirements of condition 1; and
(b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.

3. The Environmental Compliance Report required by condition 2, must include as a minimum:

(a) certification whether or not the items of infrastructure or components thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in condition 1;
(b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1; and
(c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

4. Subject to condition 3(a), where an item of infrastructure or component of infrastructure has been certified as not being constructed, or does not comply with the corresponding requirements, or contains material defects, the works approval holder must:

(d) correct the non-compliant or defective works, prior to re-certifying in accordance with condition 3(a); or
(e) provide to the CEO a description of, and explanation for, any departures from the requirements specified in Table 1 that do not require rectification and do not constitute a material defect along with the Environmental Compliance Report required by condition 2.

Records and reporting (general)

5. The works approval holder must record the following information in relation to complaints received by the works approval holder (whether 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);
(a) the time and date of the complaint;
(b) the complete details of the complaint and any other concerns or issues raised; and
(c) the complete details and dates of action(s) taken by the works approval holder to investigate or respond to any complaint.

6. 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 works conducted in accordance with condition 1; and
(b) complaints received under condition 5.

7. The books specified under condition 6 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 2 have the meanings defined.

Table 2: Definitions

Term	Definition
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 equipment has been constructed or installed in accordance with the works approval.
EP Act	*Environmental Protection Act 1986* (WA).
premises	the premises to which this licence applies, as specified at the front of this licence 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.
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

The prescribed premises is shown in the map below (Figure 1). The red line depicts the premises boundary.

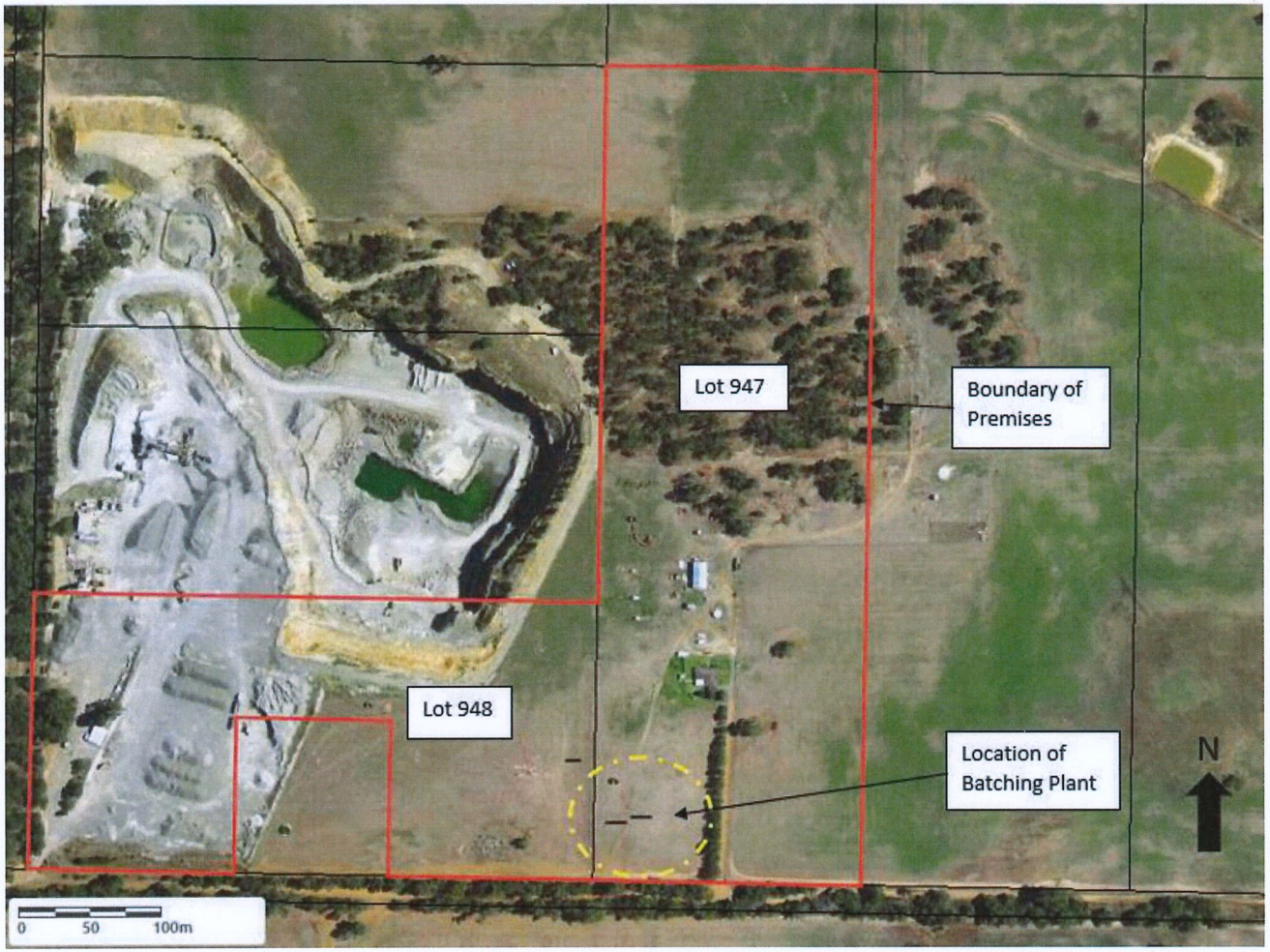


Figure 1: Map of the boundary of the prescribed premises

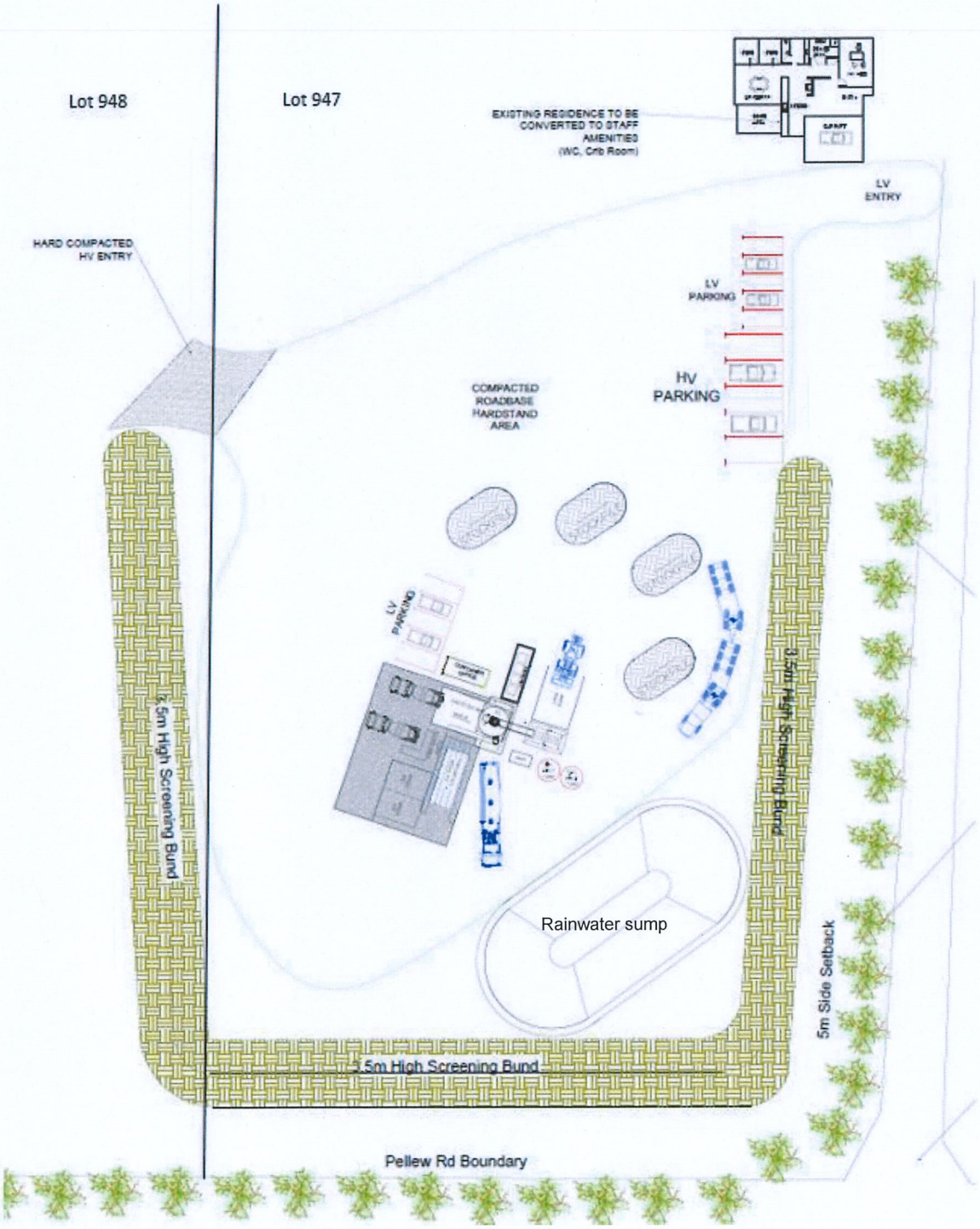


Figure 2: General plant layout

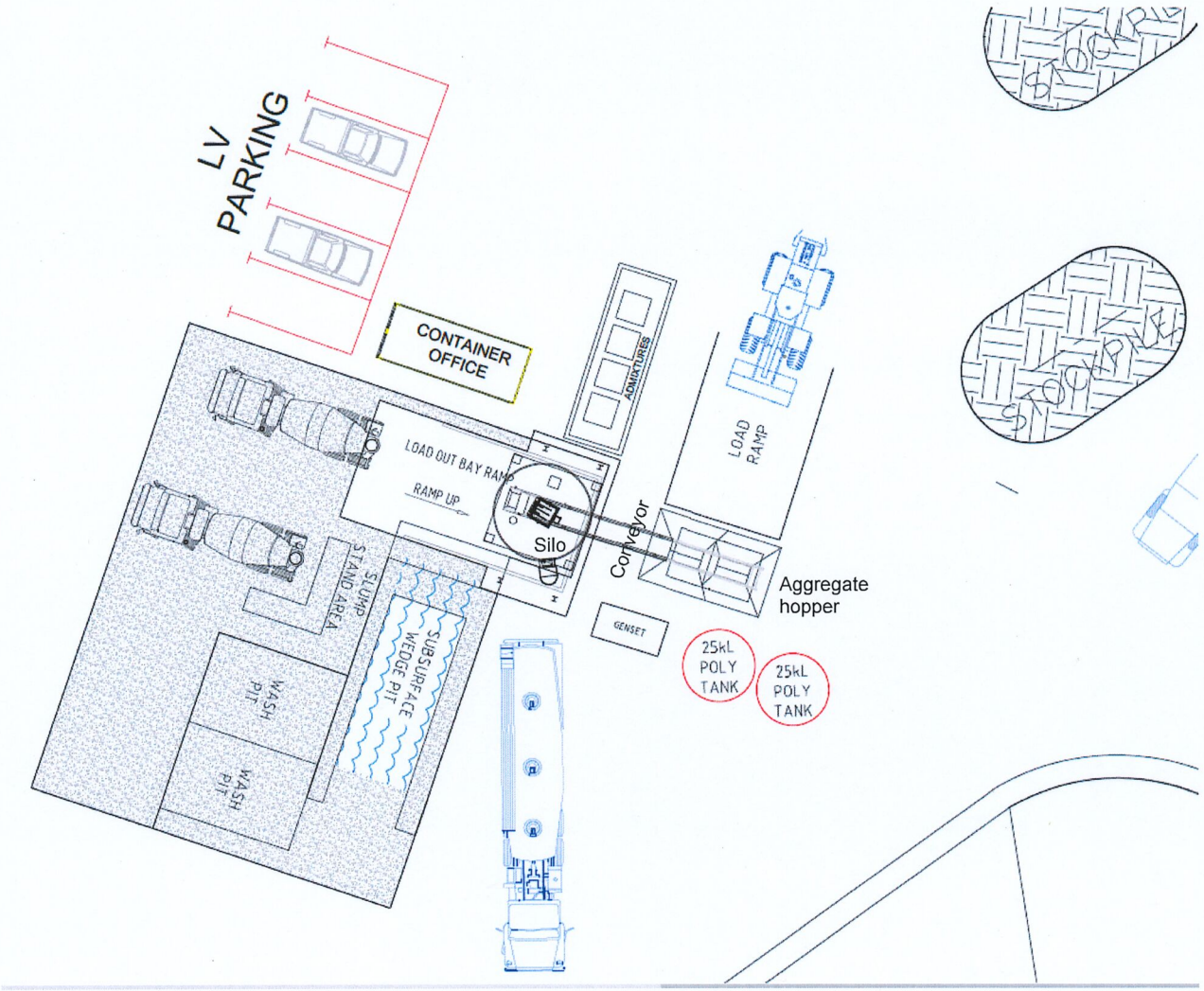


Figure 3: Detail of batching plant