WORKS APPROVAL APPLICATION

WORKS APPROVAL FOR 2 MOBILE CONCRETE BATCHING PLANTS AND ASSOCIATED INFRASTRUCTURE

SWAN MATERIALS T/AS

SWAN CONCRETE

LOT 242 Russell Road, MUNSTER WA

January 2026

ATTACHMENTS

ATTACHMENT 1A – CERTIFICATES OF TITLE

WESTERN AUSTRALIA

TITLE NUMBER	
Volume	Folio
1417	**148**

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts

REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

THIS IS A MULTI-LOT TITLE

LAND DESCRIPTION:

LOT 50 ON DIAGRAM 6065
LOT 246 ON DEPOSITED PLAN 226117

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

COCKBURN CEMENT LTD OF 191 ST GEORGES TERRACE, PERTH

(XA K594885) REGISTERED 13/5/2008

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

1. K529109 MEMORIAL. CONTAMINATED SITES ACT 2003 REGISTERED 7/3/2008.
2. K529174 MEMORIAL. CONTAMINATED SITES ACT 2003 REGISTERED 7/3/2008.

Warning: 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.

----------END OF CERTIFICATE OF 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:	1417-148 (50/D6065), 1417-148 (246/DP226117)
PREVIOUS TITLE:	1158-392
PROPERTY STREET ADDRESS:	NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AUTHORITY:	CITY OF COCKBURN

NOTE 1: N544821 SECTION 138D TLA APPLIES TO CAVEAT B601064

WESTERN AUSTRALIA

TITLE NUMBER	
Volume	Folio
2045	**99**

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts

REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

LAND DESCRIPTION:

LOT 450 ON DEPOSITED PLAN 249735

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

COCKBURN CEMENT LTD OF LOT 242 RUSSELL ROAD EAST, MUNSTER

(A F912777) REGISTERED 27/6/1995

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

1. THE LAND THE SUBJECT OF THIS CERTIFICATE OF TITLE EXCLUDES ALL PORTIONS OF THE LOT DESCRIBED ABOVE EXCEPT THAT PORTION SHOWN IN THE SKETCH OF THE SUPERSEDED PAPER VERSION OF THIS TITLE.
2. I438080 EASEMENT BENEFIT SEE DOCUMENT I438080 REGISTERED 4/4/2003.
3. I966644 EASEMENT BENEFIT SEE SKETCH IN INSTRUMENT I966644. REGISTERED 27/7/2004.
4. K529174 MEMORIAL. CONTAMINATED SITES ACT 2003 REGISTERED 7/3/2008.

Warning: 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.

----------END OF CERTIFICATE OF 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:	2045-99 (450/DP249735)
PREVIOUS TITLE:	1722-870
PROPERTY STREET ADDRESS:	NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AUTHORITY:	CITY OF COCKBURN

WESTERN AUSTRALIA

TITLE NUMBER	
Volume	Folio
2115	**676**

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts

REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

LAND DESCRIPTION:

LOT 88 ON PLAN 22127

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

COCKBURN CEMENT LTD OF LOT 242 RUSSELL ROAD EAST, MUNSTER

(A G600097) REGISTERED 3/10/1997

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

1. K529174 MEMORIAL. CONTAMINATED SITES ACT 2003 REGISTERED 7/3/2008.

Warning: 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.

----------END OF CERTIFICATE OF TITLE----------

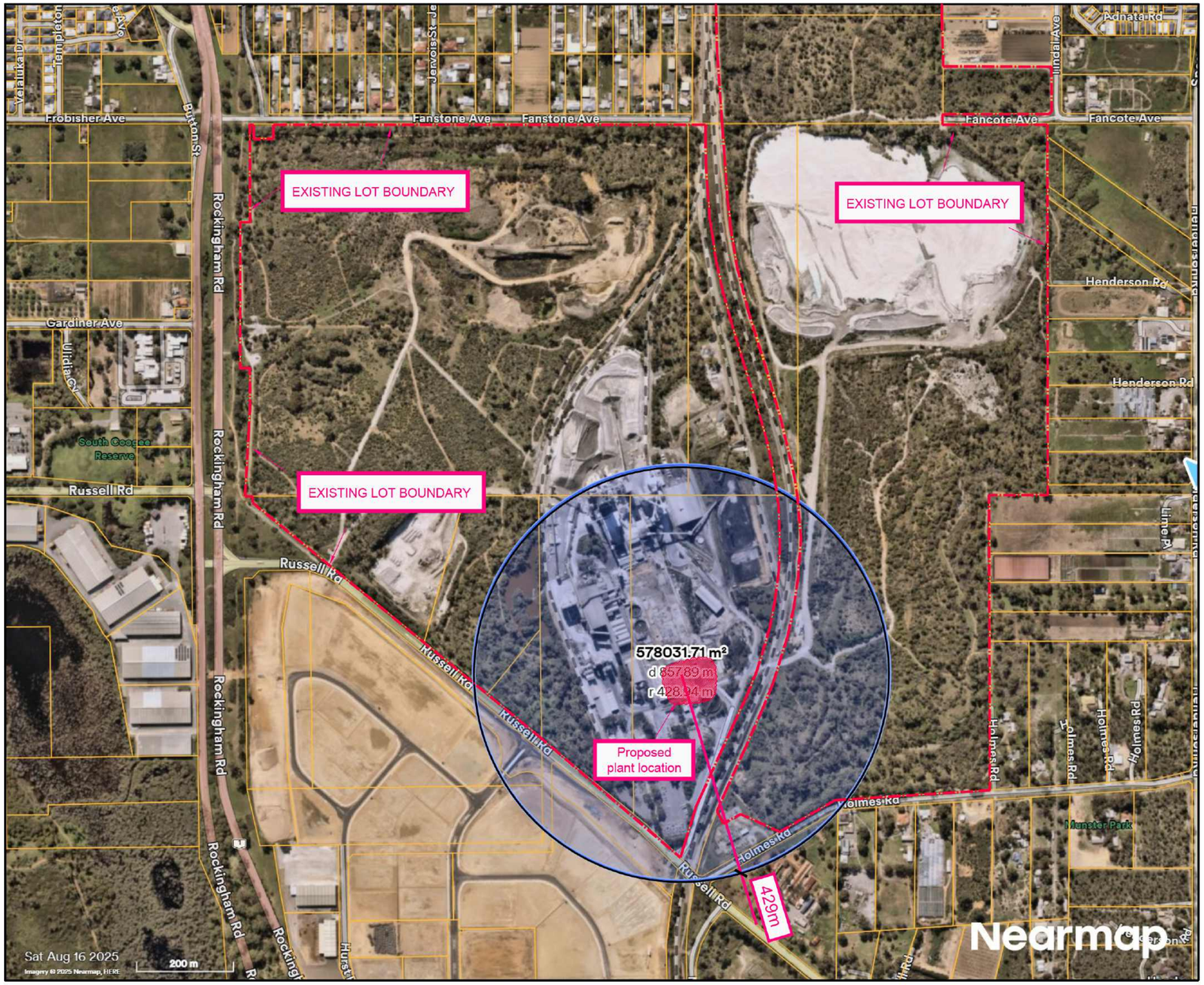
STATEMENTS:

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:	2115-676 (88/P22127)
PREVIOUS TITLE:	1329-98, 1417-149
PROPERTY STREET ADDRESS:	NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AUTHORITY:	CITY OF COCKBURN

NOTE 1: N544821 SECTION 138D TLA APPLIES TO CAVEAT B601064

ATTACHMENT 2 – SITE DRAWINGS



Part Lot Enlargement

O/A Cockburn Cement Site

Not to scale

Note:-

O/A Site Boundary

0 50 100 150 200 250 500

DESCRIPTION.	No	DATE.	INIT.
REVISION.			
Revised for Planning and DWER Application	B	041225	MJC
For Discussion	A	031125	MJC
DESCRIPTION.	No	DATE.	INIT.
REVISION.			

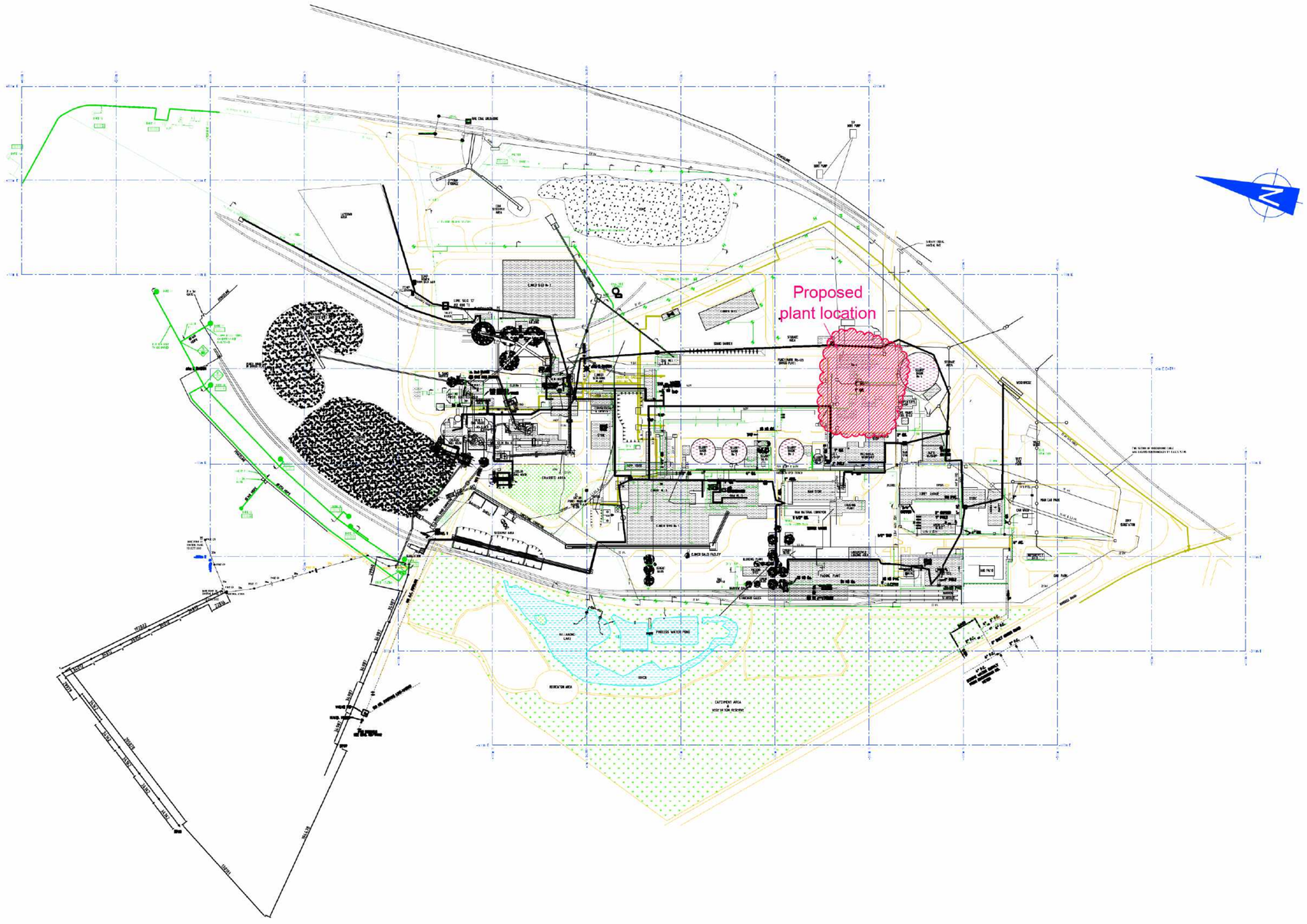
SWAN MATERIALS

Proposed Mobile Plant

Cockburn Cement, Munster:- O/A Aerial Site

Lot 242 Russell Road, Munster

DRAWN	MJC	DATE	Oct 2025		Job No. SWMC 001	REV B
CKD.		SCALE	1:5000	A1	DWG A 00	
APP.						



Note:-

0 25 50 75 100 125 250

				Revised for Planning and DWER Application	B	041225	MJC
				For Discussion	A	301025	MJC
DESCRIPTION.	No	DATE.	INIT.	DESCRIPTION.	No	DATE.	INIT.
REVISION.				REVISION.			

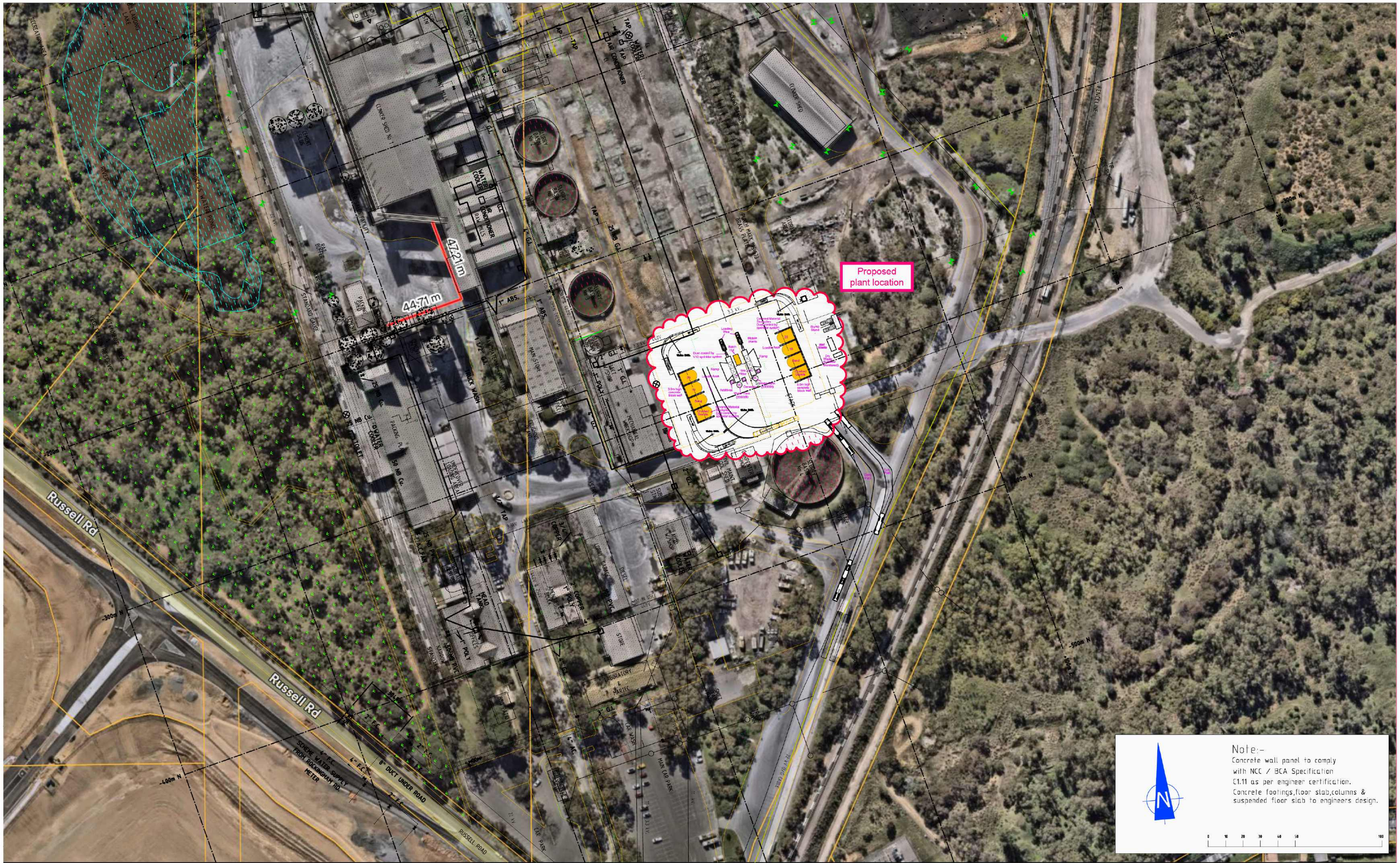
ALL DIMENSIONS ARE IN MILLIMETRES.
DO NOT SCALE.

SWAN MATERIALS

Proposed Mobile Plant

Cockburn Cement, Munster:- O/A Original Site Layout
Lot 242 Russell Road, Munster

DRAWN	MJC	DATE	Oct 2025	Job No.	SWMC 001
CKD.		SCALE	1:2500	A1	DWG A 00.1
APP.					REV B



DESCRIPTION.	No	DATE.	INIT.
REVISION.			
Revised for Planning and DWER Application	D	041225	MJC
For Planning and DWER Application	C	181125	MJC
For Discussion	B	211025	MJC
DESCRIPTION.	No	DATE.	INIT.
REVISION.			

ALL DIMENSIONS ARE IN MILLIMETRES.
DO NOT SCALE.

SWAN MATERIALS

Proposed Mobile Plant

Cockburn Cement Aerial Site Location (Portabatch Position)
Lot 242 Russell Road, Munster

DRAWN	MJC	DATE	Oct 2025	Job No. SWMC 001	REV D
CKD.		SCALE	1:1000	A1 DWG A 01	
APP.					

Proposed plant location

Note:-
Concrete wall panel to comply with NCC / BCA Specification C1.11 as per engineer certification.
Concrete footings,floor slab,columns & suspended floor slab to engineers design.

DESCRIPTION.	No	DATE.	INIT.
REVISION.			

DESCRIPTION.	No	DATE.	INIT.
Revised for Planning and DWER Application	D	041225	MJC
For Planning and DWER Application	C	181125	MJC
For Discussion	B	211025	MJC
REVISION.			

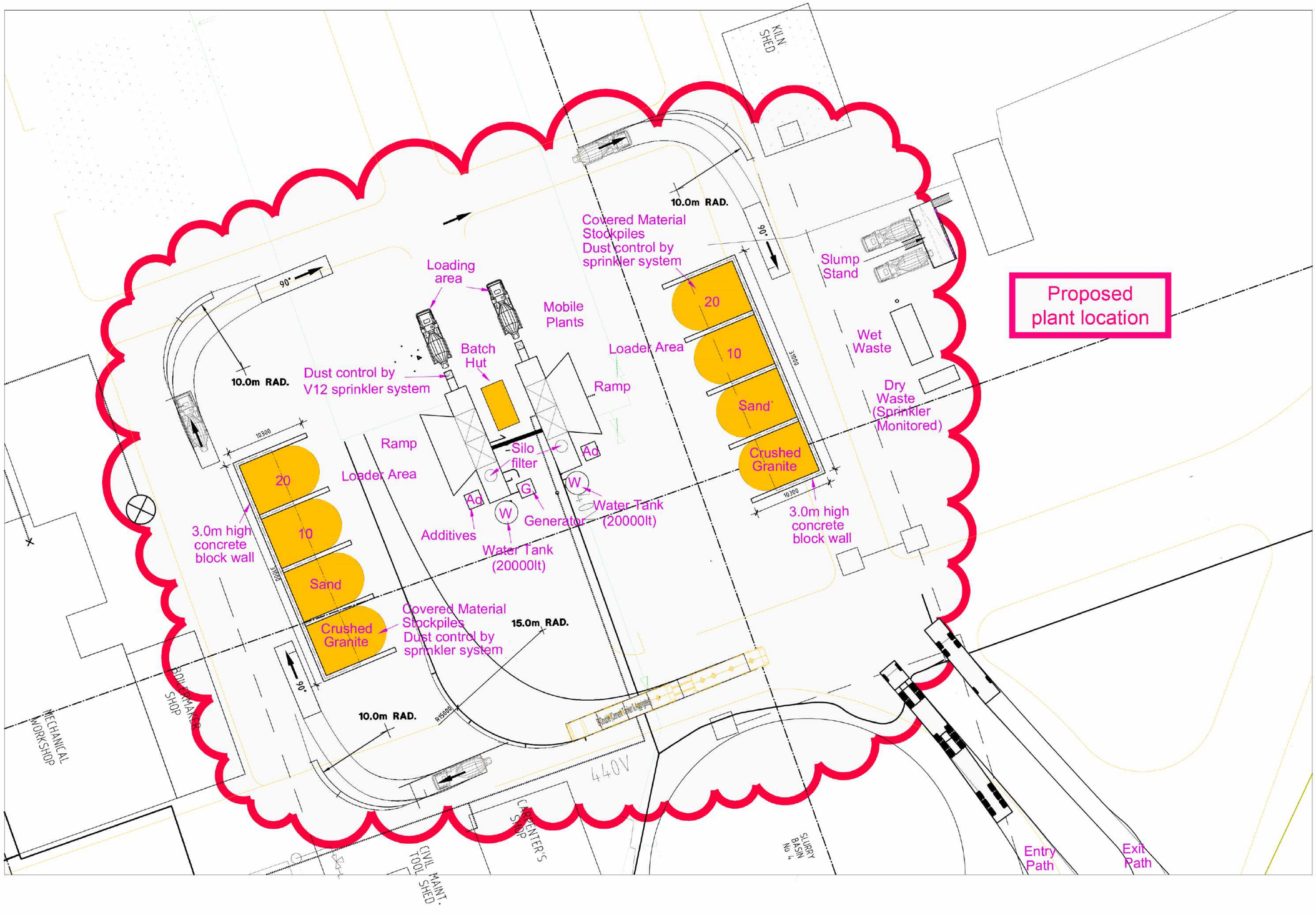
ALL DIMENSIONS ARE IN MILLIMETRES.
DO NOT SCALE.

SWAN MATERIALS

Proposed Mobile Plant

Cockburn Cement Part Site Location (Portabatch Position)
Lot 242 Russell Road, Munster

DRAWN	MJC	DATE	Oct 2025	Job No. SWMC 001	REV
CKD.		SCALE	1:1000	A1 DWG A 02	D
APP.					



DESCRIPTION.	No	DATE.	INIT.
REVISION.			

DESCRIPTION.	No	DATE.	INIT.
Revised for Planning and DWER Application	D	041225	MJC
For Planning and DWER Application	C	181125	MJC
For Discussion	B	211025	MJC
REVISION.			

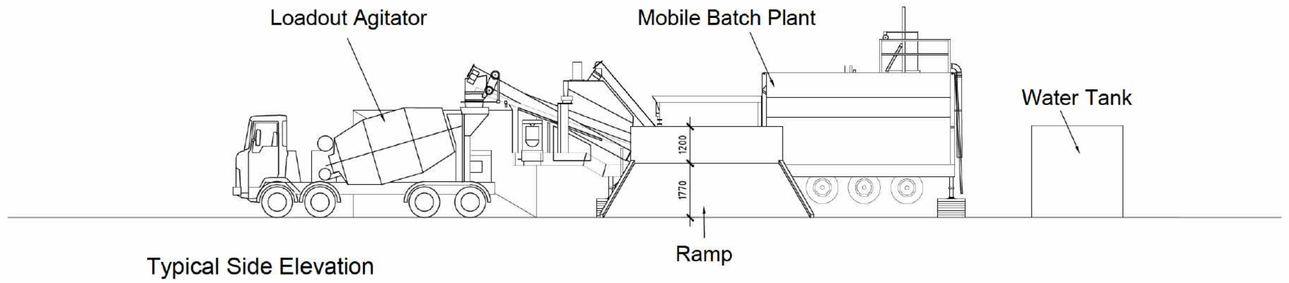
ALL DIMENSIONS ARE IN MILLIMETRES.
DO NOT SCALE.

SWAN MATERIALS

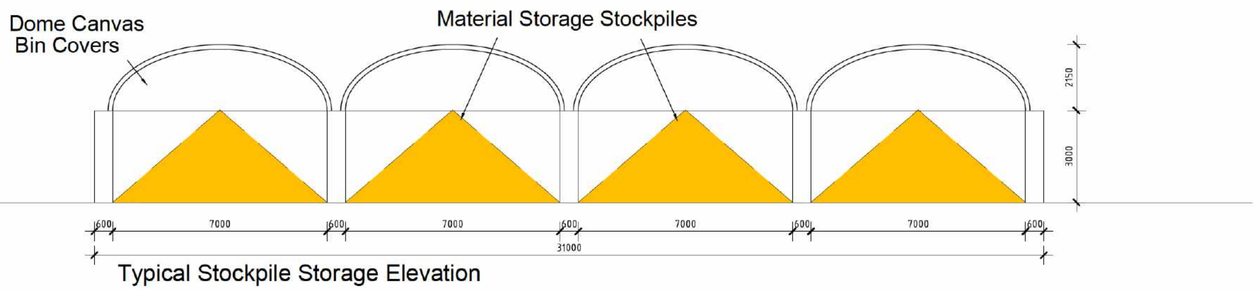
Proposed Mobile Plant

Cockburn Cement (Portabatch Plan)
Lot 242 Russell Road, Munster

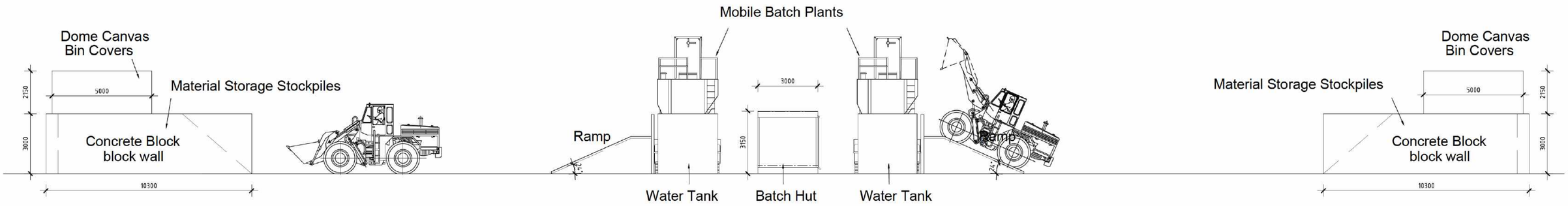
DRAWN	MJC	DATE	Oct 2025	Job No. SWMC 001	REV
CKD.		SCALE	1:250	A1 DWG A 03	D
APP.					



Typical Side Elevation



Typical Stockpile Storage Elevation



Plant Layout Elevation

Note:-

Refer to "Portabatch" drawings for mobile plant details

Concrete wall panels for material stockpile separation

0 1 2 3 4 5 10

DESCRIPTION.	No	DATE.	INIT.
REVISION.			

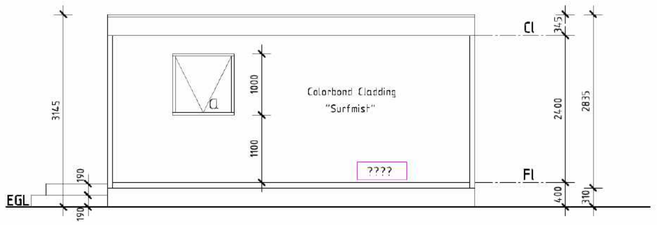
DESCRIPTION.	No	DATE.	INIT.
REVISION.			
Revised for Planning and DWER Application	C	041225	MJC
For Planning and DWER Application	B	181125	MJC
For Discussion	A	301025	MJC

ALL DIMENSIONS ARE IN MILLIMETRES.
DO NOT SCALE.

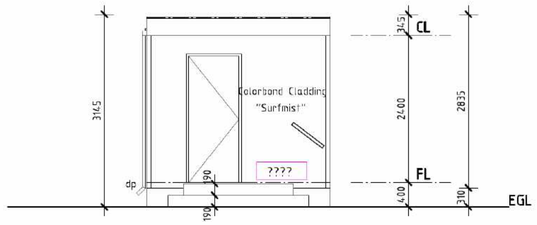
Proposed Mobile Plant

Cockburn Cement Batch Plant Elevations
Lot 242 Russell Road, Munster

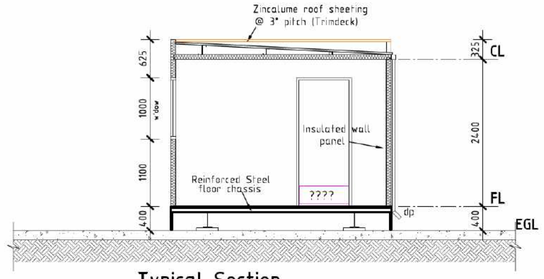
DRAWN	MJC	DATE	Oct 2025	Job No.	SWMC 001
CKD.		SCALE	1:100	A1 DWG	A 04
APP.					REV C



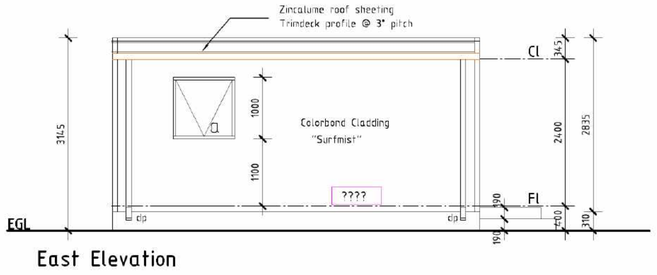
West Elevation



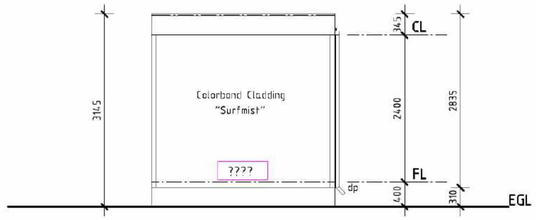
North Elevation



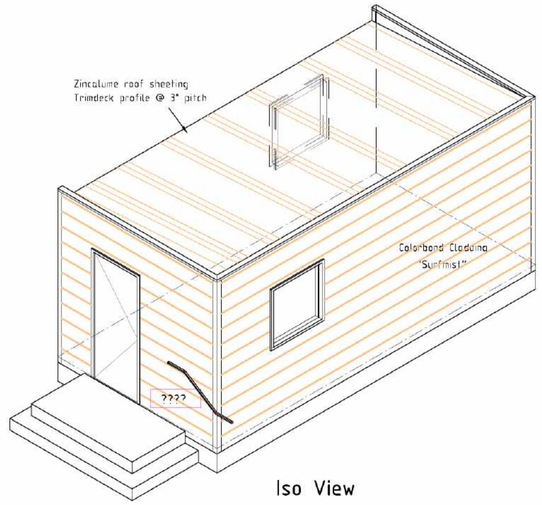
Typical Section



East Elevation

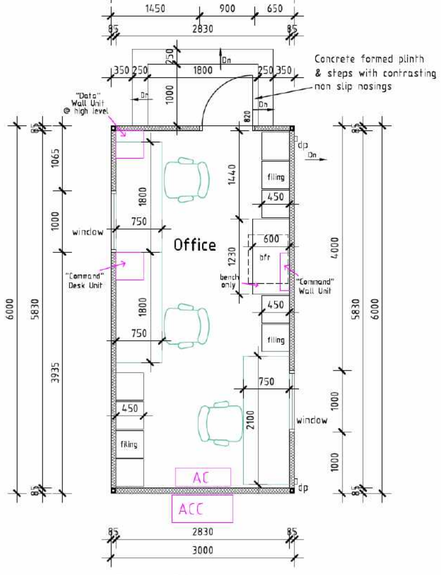


South Elevation

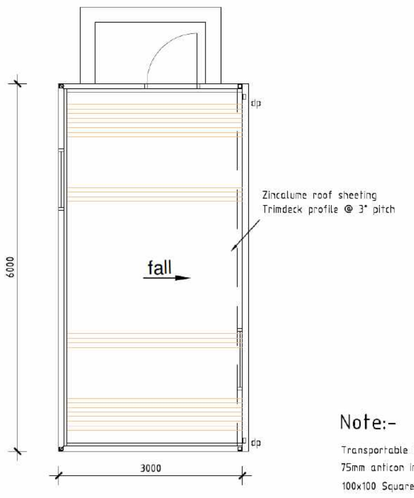


Iso View

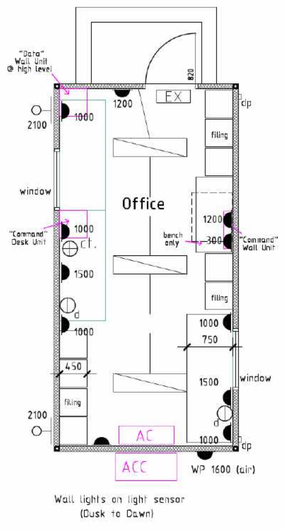
Transportable buildings
reused from other sites



Floor Plan



Roof Plan



Wall lights on light sensor
(Dusk to Dawn)

Electrical Plan

Note:-

Transportable Building Roof Sheeting :- Zincalume Trimdeck profile
75mm anticon insulation to underside roof sheeting
100x100 Square Line Gutter Colorbond "Shale Grey"
Trims & Flashings Colorbond "Windspay"
Door Frame :- Ionic T167-3W Semi Gloss finish
Door :- Grey Dusk T167-1W Semi Gloss finish
Window frames :- White
85mm colorbond insulated wall panel to perimeter walls
Panasonic Split Air conditioner Model No CS_CU-RZ25AKR
(or similar approved)

ELECTRICAL LEGEND

- SP Ceiling mounted speaker
- BG Break Glass Detector
- ESP Evacuation Speaker (horn)
- SINGLE GPO
- DOUBLE GPO
- WP DOUBLE GPO (Weather proof)
- WALL LIGHT (Light sensor)
- CEILING LIGHT
- DOWNLIGHT
- WALL FAN
- SWITCHBOARD
- D. DIMMER
- TH THERMAL (HEAT) DETECTOR
- AB Alarm Bell
- WIP WIP
- CT COLOUR TV
- D Data
- EXHAUST FAN/LIGHT
- FLURO (24hr lighting)
- E FLURO (Emergency)
- FLURO
- EXIT
- EXHAUST FAN
- EO EMERGENCY LIGHT
- SD SMOKE DETECTOR

Note:-

Emergency lighting to be installed
in accordance with E4.2 of the N.C.C
& AS2293.1 as certified by Electrical
Engineer on completion prior to occupation

Illuminated exit signs to be installed
in accordance with E4.5 of the N.C.C
& AS2293.1 as certified by Electrical
Engineer on completion prior to occupation

Note:-

Concrete wall panel to comply
with NCC / BCA Specification
C1.11 as per engineer certification.

Concrete footings,floor slab,columns &
suspended floor slab to engineers design.

Non Slip floor finishes in compliance with
AS/NZS 4586 & HB 197

Wall and Floor finishes in compliance with specification
C1.10a of the NCC

Entry door to have door seals and comply with
J3.4a of the NCC

0 0.5 1 1.5 2 2.5 5

DESCRIPTION.	No	DATE.	INIT.
REVISION.			
For Planning and DWER Application	B	041225	MJC
For Discussion	A	061125	MJC
DESCRIPTION.	No	DATE.	INIT.
REVISION.			

ALL DIMENSIONS ARE IN MILLIMETRES.
DO NOT SCALE.

SWAN MATERIALS

Proposed Mobile Plant

Cockburn Cement, Munster :- Transportable Batch Hut
Lot 242 Russell Road, Munster

DRAWN	MJC	DATE	Oct 2025		Job No. SWMC 001	REV B
CKD.		SCALE	1:50	A1	DWG A 05	
APP.						

ATTACHMENT 3B – SUPPORTING INFORMATION

WORKS APPROVAL APPLICATION

SUPPORTING INFORMATION

TWO MOBILE CONCRETE BATCHING PLANT AND ASSOCIATED INFRASTRUCTURE

SWAN MATERIALS PTY LTD T/AS SWAN CONCRETE

LOT 242 Russell Road, MUNSTER WA

January 2026

1.0 INTRODUCTION

This Works Approval application is for two mobile concrete batching plants and associated infrastructure to be constructed and installed at *Cockburn* Cement, Lot 242 Russell Road, Munster for the manufacturing of concrete to fill a shortfall in current concrete supply. Swan Materials Pty Ltd trading as Swan Concrete is the applicant. On initial consultation with the Department of Water and Environmental Regulation (**DWER**) it was agreed that this proposal would be applied for as a new works approval. There has been consultation with relevant stakeholders which is detailed further in this supporting information.

Cockburn Cement Limited (ACN 008 673 470) (**CCL**) and Swan Materials Pty Ltd (ACN 626 554 407) (**Swan**) are both wholly owned subsidiaries of Adbri Pty Ltd (ACN 007 596 018) (**Adbri**). CCL and Swan are sister companies within the Adbri Group and share common corporate policies and standards. While the State Agreement sits with CCL, the mobile batching plant will be owned and operated by Swan, which is why it is their preference to submit the works approval application under Swan.

2.0 BACKGROUND

Cockburn Cement Munster is already a prescribed premises (l4533/1967/5), and this works approval is for a Category 77 of Schedule 1 of the *Environmental Protection Regulations 1987*. 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 and with a design capacity of 100 tonnes or more per year.

The two mobile concrete batching plants are both previously registered batching plants owned by BGC (Australia) Pty Ltd and operated by BGC Concrete which were utilised throughout Perth metro and country sites as required for a number of years. Since the sale of BGC's cementitious divisions and subsequent purchase by a number of entities these two mobile batching plants are now owned by Swan Materials Pty Ltd. Refer Appendices for details on the mobile batching plants and previous registrations.

The mobile concrete batching plants are Portabatch 2000/50 plants which are fully self-contained units which can be transported and installed on any level site in a short period of time ready for operations. Minimal site preparation is needed with associated infrastructure being front end loaders, ramps, material stockpiles, slump stand, batch hut, wet and dry waste pits and settling ponds/pits. This minimal infrastructure can be constructed for short or long-term operations as required.

This proposal is required to comply with the *Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998,* and compliance is detailed in Section 3. Further information relating to potential environmental impacts is covered in Section 4 of this document and detailed in the Environmental Management Plan (**EMP**) (Attachment 8A) and Dust Management Plan (**DMP**) (Attachment 8B) included along with relevant drawings and plans (Attachment 2) in the application Attachments.

Water allocation licences for the existing premises are sufficient to be able to supply groundwater for the proposal pending water sampling results and if/where required potable water will be utilised.

There has been stakeholder consultation to date for this proposal which is detailed in table 1 below:

Table 1 Stakeholder Consultation

Agency	ENGAGEMENT SUMMARY
Department of Water and Environmental Regulation (DWER)	Initial phone conversation with Chris Malley DWER on the 4th November 2025 to discuss pathway for application and recommendation of a scoping meeting. Scoping meeting held with DWER on 19th November 2025. No major issues were raised, and it was confirmed that an application for a Works Approval for a Category 77 premises in accordance with the *Environmental Protection Regulations 1987* would be required for approval of the mobile batching plants. It was confirmed that the works approval application process could run concurrently with the planning application. The application to show compliance with the *Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998.* DWER also noted that mention had already been made with DEED.
Department of Energy and Economic Diversification (DEED)	Meetings have been held with representatives of DEED on 16th September 2025 and 9th December 2025 to discuss the proposed batching plants and requirements associated with the State Agreement applicable to the site (*Cement Works (Cockburn Cement Limited) Agreement Act 1971*). No issues have been raised by DEED as part of the pre-lodgement engagement, and Adbri and CCL will continue engagement with DEED separate to the planning process regarding approval requirements associated with the State Agreement.
City of Cockburn	Meeting held with the City of Cockburn on 28th November 2025. No concerns were identified, and there was in-principal support for the proposal, noting a complete assessment would be required post lodgement. It was noted that the planning submission should address traffic movements to confirm there would be no impact on the surrounding road network. The City noted referral to Development WA and DWER would be required.

3.0 COMPLIANCE WITH ENVIRONMENTAL PROTECTION (CONCRETE BATCHING AND CEMENT PRODUCT MANUFACTURING) REGULATIONS 1998

The mobile batching plants will be subject to the Environment Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998 (Concrete Batching Regulations). Details of the projects compliance with the regulations are included in Table 2.

Table 2: Compliance with the Concrete Batching Regulations

Regulation		Requirement	Proposed controls and management
3.	**Minimization of dust**	(1) 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 the premises, no such dust escapes onto any place to which the public has access). (2) An operator must immediately clean up any material spilt during concrete batching or cement product manufacturing.	All trucks delivering aggregate, sand and crushed granite will be covered. Cement will be delivered in sealed tankers and pumped straight into silos. Each batching plant has a water spray ring around the gob hopper for dust suppression. Any spills will be cleaned up immediately and other areas swept with a sweeper truck and/or wet with a water truck if/as required.
4.	**Control of dust from trafficable areas**	(1) 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. (2) An operator must not allow any vehicles carrying concrete, or any of the ingredients of concrete, to	All areas of the premises will be on hardstand/sealed or treated with water as often as necessary. The access road and other areas will be swept with a sweeper truck and/or wet down by onsite water truck as required. There is a street sweeper and water truck already in use on the Munster site for existing operations. Agitator trucks and aggregate delivery trucks will be inspected prior to leaving site to ensure they are free from dust or wet

		leave the premises until it has been washed free of cement slurry and dust.	concrete.
5.	**Storage of aggregate and sand**	(1) 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. (2) An operator must not allow the height of aggregate or sand in a storage bin or bay to exceed the height of the bin or bay (including any windshields fitted to it). (3) 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. (4) 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.	All aggregates, sand and crushed granite will be stored in bays surrounded by 3m high concrete block walls. Material stored in material bays will not exceed the bay wall height of 3 metres. Material bays will be covered as required. Dust will be controlled by a sprinkler system to mitigate airborne dust. Unloading of aggregate, sand and crushed granite will be monitored to ensure there is no fugitive dust emissions. Unloading procedures and SWMS will include measures for the ceasing of activities if visible dust is found to be escaping the premises.
6.	**Storage of cement**	(1) 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). (2) 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	Cement will be stored in individual silos on each batching plant that are each fitted with individual air cleaning systems. Each individual silo on each batching plant are fitted with an air cleaning system, level indicator, pressure gauge, pressure relief safety valve and audible alarm.

		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). (3) An operator must seal all inspection ports, hatches and other openings to a cement storage silo while cement is being unloaded into the silo. (4) If, during the filling of a cement storage silo, any visible cement dust escapes from the silo the operator must ensure that no further loads of cement are unloaded into the silo until appropriate measures have been taken to prevent the escape of dust form the silo.	All inspection ports, hatches and other openings on each silo will be sealed when cement is being unloaded into each silo. Unloading procedures and SWMS will include measures and actions for the ceasing of cement deliveries if any visible cement dust escapes from the silos. No further loads will be accepted until the reason for the cement dust escaping is investigated and measures taken to rectify.
7.	**Air cleaning system for cement storage silo**	(1) 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 (iii) Discharge air from the system into a weigh hopper or to an outlet which is within one metre of the ground. (2) An operator must inspect the filters, or if the system is fitted with pressure gauges for the detection of blockages or leaks, check those gauges, at least weekly and immediately clean, repair or replace ay filter which is blocked or damaged or have an excessive build-up of dust. (3) An operator must test the air cleaning system for a cement storage silo at least weekly and if it is not	Each individual silo is fitted with a reverse jet pulse filter (Dustcotech filters) with 35m^2 of filter area. This reduces dust emissions to less than 50 milligrams of particulate matter per cubic metre by displaced air passing through the filter medium to capture cement dust. Discharges air from the system into a cement weigh hopper. The air cleaning system will be inspected at least on a weekly basis as part of the general maintenance program. Any blocked or damaged filters will be cleaned, repaired or replaced as soon as possible. Replacement filters will be kept in stock. The air cleaning system will be tested at least on a weekly basis as part of the general maintenance program. Any silo

		working efficiently, must not unload any cement into the silo until the system is repaired. (4) An operator must keep on the premises, or in a readily accessible place, sufficient spare filters to replace all such bags or cartridges used in the cleaning systems of all cement storage silos on the premises.	with inefficient or defective air cleaning system will be tagged out until repaired and retested. The operator will keep sufficient spares for the air cleaning systems in a readily accessible location onsite.
8.	**Level indicator system or relief valve for cement storage silo**	(1) 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 (iii) A test circuit which indicates whether the level indicator and alarm are working correctly. (2) Where a level indicator is used to comply with regulation 6(2)(b) the operator must ensure that the test circuit is activated before a load of cement is unloaded into the silo and that no cement is unloaded into the silo if the level indicator or alarm are not working correctly. (3) 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.	Each batching plant has digital indicators for cement, and an audible alarm sounds if the cement stored in the silo reaches 2 tonnes less than the silo's maximum capacity. A test circuit indicates whether the level indicator and alarm are working correctly. Unloading procedures and SWMS will require the test circuit to be activated before a load of cement can be unloaded into the silos. If the level indicator or alarm are not working correctly then no cement is to be unloaded. Each silo is fitted with a quick release inspection hatch and pressure relief safety valve.
9.	**Movement of materials on**	(1) An operator must not use – (a) hopper, conveyor, chute, bucket elevator or	All material stockpiles will be covered where necessary and have a sprinkler system to reduce dust emissions.

	premises and loading of agitators	transfer point to more 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. (2) An operator must maintain in good working order all wind shields, water sprays, dust extraction systems and other devices used to comply with subregulation (1).	Each batching plant has a water spray ring around the gob hopper for dust suppression. The dry waste bay will be sprinkler monitored to ensure there are no dust emissions. All dust suppression equipment including sprinklers will be tested regularly to ensure they are in good working order and as required maintenance will be carried out.
10.	**Cement product manufacturing premises to be cleaned**	(1) An operator carrying on cement product manufacturing must regularly clean all inside areas on the premises to prevent the accumulation of dust on any surface. (2) An operator must no use water to carry out the cleaning referred to in subregulation (1) unless all fittings and electrical installations in that area of the premises are waterproof or otherwise designed to withstand water. (3) Subregulation (2) does not apply in relation to a building in which cement product manufacturing was being carried on before these regulations came into operation.	All areas of the site will be monitored and regularly cleaned as required (at least daily) to prevent the accumulation of dust on any surface. This is more relevant to the aggregate, sand and crushed granite stockpile areas as it is a concrete manufacturing process, not cement product manufacturing. All fittings and electrical installations in all areas will be waterproof or otherwise designed to withstand water. The site is a previous cement product manufacturing premises, but this proposal will comply with subregulation (1).
11.	**Control of wastewater**	(1) 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; (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	All water draining of any areas including stormwater will drain to settling ponds/pits. All wastewater from washing out of agitator trucks will be stored in settling ponds/pits. Where possible recycling of wastewater will be assessed and if water can be reused it will be pumped into one of the water storage tanks.

		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. (2) An operator must ensure that no water used in concrete batching or cement product manufacturing or 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.	Once solid particulate matter has settled out in settling ponds/pits it will be removed regularly to the Munster onsite waste facility.
12.	**Slurry pits, settling ponds, silt traps and oil interceptors**	(1) 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. (2) An operator must ensure that a settling pond is large enough to contain all water which might drain into it for long enough to allow all particulate matter to settle out. (3) An operator must ensure that slurry pits, settling ponds, silt traps and oil interceptors are maintained, and emptied or cleaned as often as necessary, to ensure their efficient operator.	All stormwaters will be diverted through the level grading of the site to the settling ponds/pits to capture any sediment. These settling ponds/pits will be maintained as required and solid material dug out and removed as often as required to the Munster onsite waste facility.
13.	**Disposal of waste**	An operator must ensure that all waste created during concrete batching or cement product manufacturing (including material removed from slurry pits, settling	All waste created onsite will be removed to the Munster onsite waste facility.

		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.	

4.0 POTENTIAL ENVIRONMENTAL IMPACTS

As the mobile concrete batching plants are previous Department of Environment Category 77 registered plants under the *Environmental Protection Regulations 1987* (please see attached registrations) there is not expected to be any significant impacts from the mobile batching plant which cannot be mitigated effectively. The main potential impacts from the operation of the mobile batching plant are noise and dust, however these are expected to be very minimal and can be managed. Dust monitors (5 x BAM) are already installed on the site for the licenced premises with them being located to the west, northwest and northeast of the proposal. The Environmental Management Plan is to be implemented.

Noise

Concrete batching plants themselves do not generate significant noise and the main noise generated from the operations will be from the generator and other associated activities. The associated noise generating activities is expected to be from loaders reverse beepers which can be managed with the changing to squawkers and reverse beepers on trucks delivering aggregate, sand and crushed granite and agitator trucks.

Dust

The potential dust emission discharge points from the mobile concrete batching plants are the cement storage silos which are fitted with fabric filters to capture dust emissions and the hoppers which are fitted with water spray rings for dust suppression. There may still be trace levels of dust, but this not expected to be significant and can be managed including with dampening of raw materials before they are loaded into the hoppers.

The main potential dust emissions are from material stockpiles, particularly crushed granite however these can be managed effectively with sprinklers and also dust covers over the stockpiles. All trucks delivering aggregate, sand and crushed granite to site will be covered. All material stockpiles will be contained within 3 metre high concrete block wall bays/bunkers which will be covered with dust covers when not being used and dust controlled by sprinkler systems. The dry waste bay will be sprinkler monitored to control dust emissions.

Onsite water trucks and if required a sweeper truck will be utilised to wet down areas and pick up loose material which may have the potential to contribute to dust emissions.

Regular weekly inspections, monthly preventative maintenance and daily visual monitoring will be conducted to ensure that dust emissions are kept to a minimum and dust mitigation equipment is operating efficiently. The Dust Management Plan is to be implemented.

Stormwater

All stormwater will be contained within the proposal area and all hardstand areas will be graded to the settling ponds/pits. The settling ponds/pits will be cleaned out regularly of solid material. Any spills will be contained and cleaned up immediately to reduce contamination. Where possible water will be recycled and used back in the production process or for dust suppression. During periods of high intensity rainfall if stormwater leaves the area of operational footprint it will be directed to the main Munster stormwater system which has its own capture and treatment network.

APPENDIX 1 – PREVIOUS MOBILE BATCHING PLANT REGISTRATIONS

Department of Environment

(A.2) 4 NOV

Your ref:

Our ref: R1569

Enquiries:

Direct tel:

The Manager
BGC (Australia) Pty Ltd
PO Box 7223, Cloisters Square
Perth City WA 6000

Dear Sir/Madam

ENVIRONMENTAL PROTECTION ACT 1986
REGISTRATION NUMBER 1569

Mobile Concrete Batching Plant Serial No. 826/2003
Various Locations
Registered in Western Australia

Please find enclosed your Registration, under the *Environmental Protection Regulations 1987* for the above premises. Enclosed is your registration together with the receipt for the prescribed fee.

Should any details of the Registration be incorrect, please advise the corrected details as soon as possible. You should also note that a person who becomes the new occupier of a registered premises must notify the Department of Environmental Protection of that fact within 30 days. Failure to do so is an offence under the Regulations.

Where a change of occupier occurs, an administration fee of 2 fee units (currently $28) is payable. Forms to transfer the Registration are available from the Department of Environmental Protection or in the appendix of the *Guide to the Licensing System – Licences and Registrations* available on the DEP website at www.environ.wa.gov.au

Please note, the granting of this Registration does not remove the need to obtain necessary approvals from other authorities before operation commences.

If you have any questions relating to your Registration or the above information, please contact Licensing Administration on 9222 7104 and an environmental officer will be assigned to handle your query.

[redacted]

Thursday, October 30, 2003

copy to: Local Government Authority:

e Square
141 St Georges Terrace
estern Australia 6000
822 Perth Western Australia 6842
(08) 9222 7000 Facsimile (08) 9322 1598
fo@environ.wa.gov.au
on.wa.gov.au

WESTERN AUSTRALIAN environment AWARDS

Hyatt Centre
Level 2 3 Plain Street
East Perth Western Australia 6004
PO Box 6740 Hay Street East Perth Western Australia 6892
Telephone (08) 9278 0300 Facsimile (08) 9278 0301
National Relay Service (Australian Communication Exchange) 132 544
E-mail correspondence@wrc.wa.gov.au

WESTERN AUSTRALIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION

Environmental Protection Act 1986

REGISTRATION

REGISTRATION NUMBER: 1569 **FILE NUMBER: R1569**

NAME OF OCCUPIER:

BGC (Australia) Pty Ltd

ADDRESS OF OCCUPIER:

PO Box 7223, Cloisters Square
Perth City WA 6000

NAME AND LOCATION OF PREMISES:

Mobile Concrete Batching Plant Serial No. 826/2003
Various Locations
Registered in Western Australia

Environmental Protection Regulations 1987
CLASSIFICATION(S) OF PREMISES:

Schedule 1 - Category Number 77: Concrete Batching or Cement Products Manufacturing

---

COMMENCEMENT DATE OF REGISTRATION: 27/10/2003

[redacted]

Receipt No: 013139
Receipt Date: 29/10/2003
Registration Fee: $ 348.00

Date of Issue: 27/10/2003

Department of Environment

Fax 2413

Your ref:

Our ref: R1711

Enquiries: Tim Mander

Direct tel: 6250 8015

The Manager
BGC (Australia) Pty Ltd
PO Box 7223
Cloisters Square Private Boxes WA 6850

Dear Sir/Madam

ENVIRONMENTAL PROTECTION ACT 1986
REGISTRATION NUMBER 1711

BGC Australia Pty Ltd
Mobile Concrete Batching Plant Serial No. SCE959/2004

Please find enclosed your Registration, under the *Environmental Protection Regulations 1987* for the above premises along with the receipt for the prescribed fee.

Should any details of the Registration be incorrect, please advise the corrected details as soon as possible. You should also note that a person who becomes the new occupier of a registered premises must notify the Department of Environment of that fact within 30 days. Failure to do so is an offence under the Regulations.

Where a change of occupier occurs, an administration fee of 2 fee units (currently $29) is payable. Forms to transfer Registrations are available from the Department of Environment (DoE) website at www.environment.wa.gov.au.

Please note that the granting of this Registration does not remove the need to obtain necessary approvals from other authorities before operation commences.

If you have any questions relating to your Registration or the above information, please contact Licensing Administration of the Swan Goldfields Agricultural Regional office on 6250 8000.

Yours faithfully

[redacted]

Monday, 17January 2005

WESTERN AUSTRALIAN environment AWARDS

Swan Goldfields Agricultural Region
7 Ellam Street Victoria Park Western Australia 6100
Telephone (08) 6250 8000 Facsimile (08) 6250 8050
www.environment.wa.gov.au

WESTERN AUSTRALIA

DEPARTMENT OF ENVIRONMENT

Environmental Protection Act 1986

REGISTRATION

REGISTRATION NUMBER: 1711 **FILE NUMBER: R1711**

NAME OF OCCUPIER:

BGC (Australia) Pty Ltd

ADDRESS OF OCCUPIER:

PO Box 7223
Cloisters Square Private Boxes WA 6850

NAME AND LOCATION OF PREMISES:

BGC Australia Pty Ltd
Mobile Concrete Batching Plant Serial No. SCE959/2004

Environmental Protection Regulations 1987
CLASSIFICATION(S) OF PREMISES:

Category 77 - Concrete Batching or Cement Products Manufacturing

---

COMMENCEMENT DATE OF REGISTRATION: Monday, 17 January 2005

[redacted]

Officer delegated under Section 20
of the *Environmental Protection Act 1986*

Receipt No: 014738
Receipt Date: 29/10/2004
Registration Fee: $360.00

Date of Issue: Monday, 17 January 2005

APPENDIX 2 – MOBILE BATCHING PLANT DRAWINGS

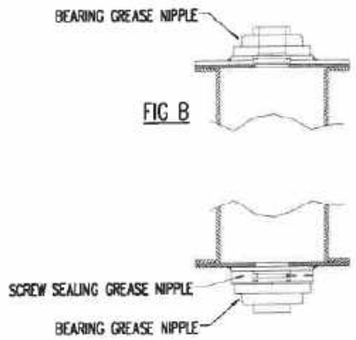
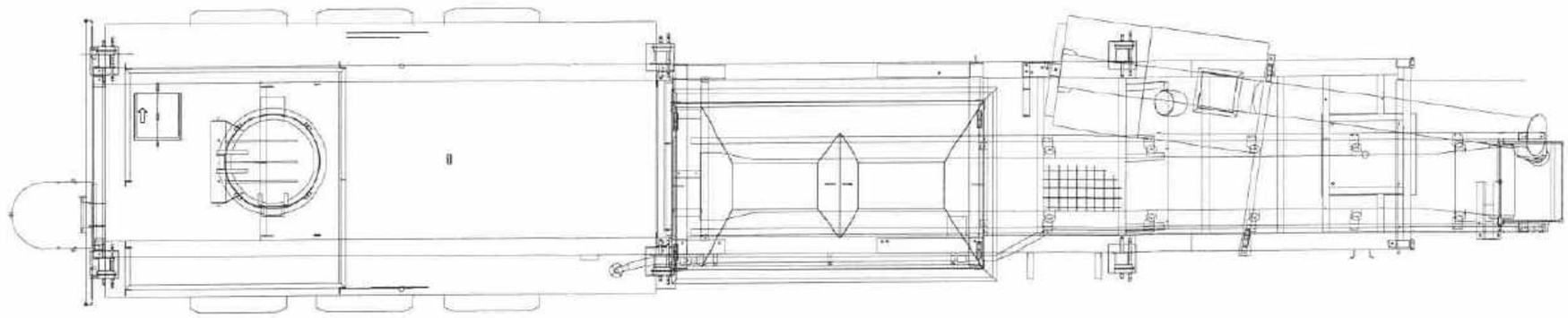
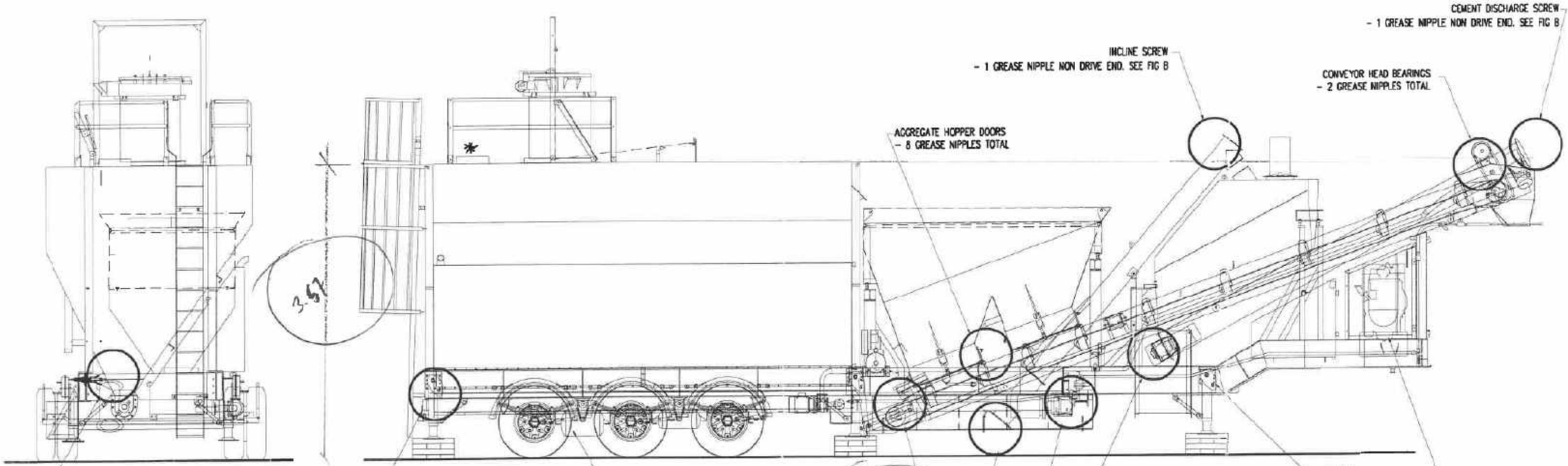


FIG B

FIG A





GREASE	SCREW GEARBOX OIL
CASTROL ELP2 OR EQUIVALANT	SHELL TIVELLA SC320 SYNTHETIC

DATE OF LAST EDIT#/10/2004-07.58

Sunstate Consulting & Engineering
Manufacturing Concrete Batching—Quarrying—Materials Handling Equipment
157-161 COBALT STREET, CAROLE PARK 4300. BRISBANE.
TELEPHONE (07) 3879 3288 FAX (07) 3879 3275

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED

No.	REVISION	DRAWN	DATE

No.	REVISION	DRAWN	DATE

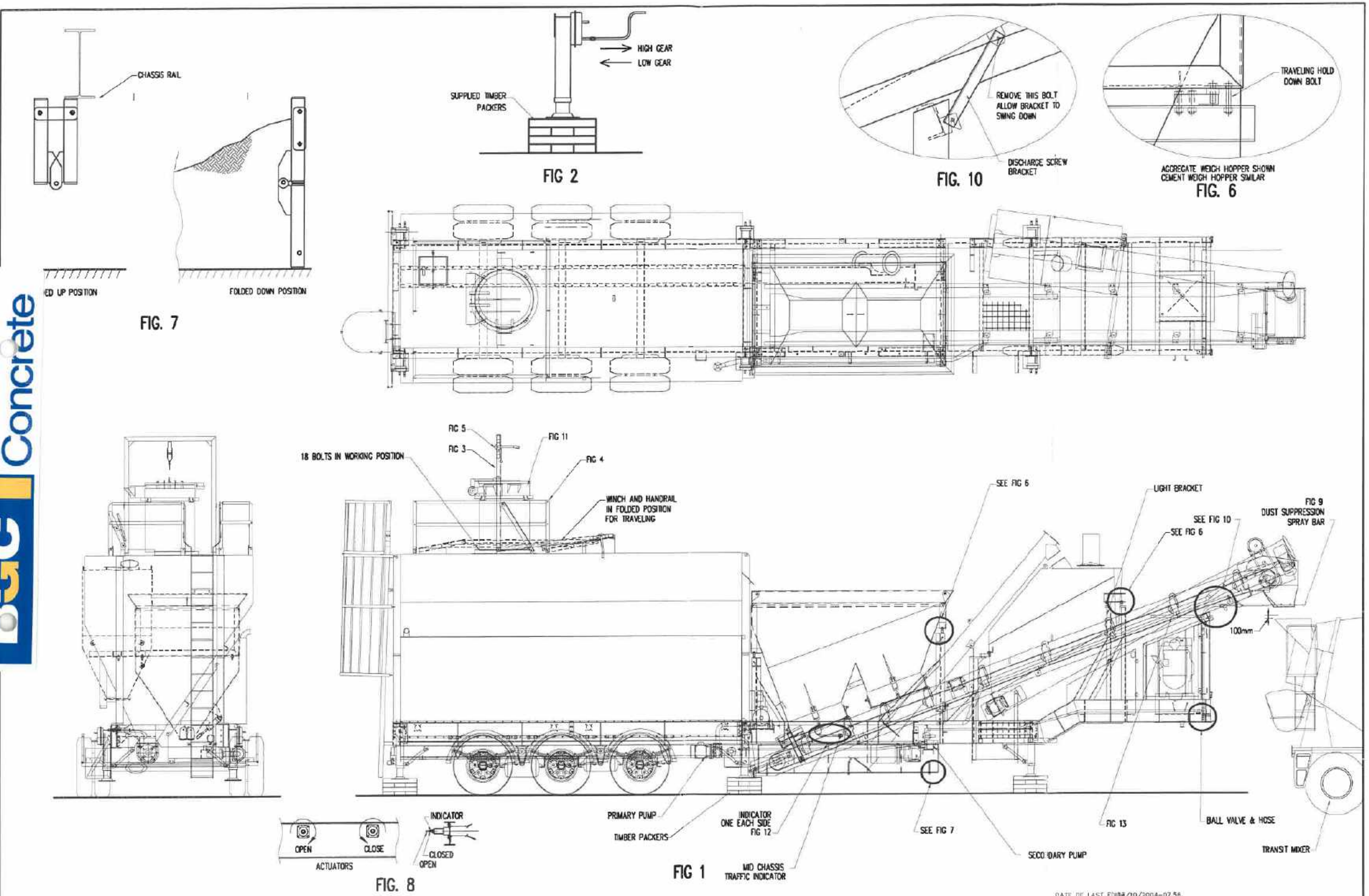
SCALE	1:50	
DRAWN	ERB	16.10.02
CHECKED	-	-
TRACED		
DESIGNED	-	-
APPROVED		

Sunstate Consulting & Engineering

MOBILE CONCRETE BATCHING PLANT

50 Tonne STORAGE SILO 50m/hr TRI-AXLE
LUBRICATION ARRANGEMENT

DRAWING No. A1
M050-010
REVISION



DATE OF LAST EDI0?/10/2004-07.56

Sunstate Consulting & Engineering
Manufacturing Concrete Batching-Quarrying-Materials Handling Equipment
157-161 COBALT STREET, CAROLE PARK 4300. BRISBANE.
TELEPHONE (07) 3879 3288 FAX (07) 3879 3275

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
PROJECTION IS THIRD ANGLE

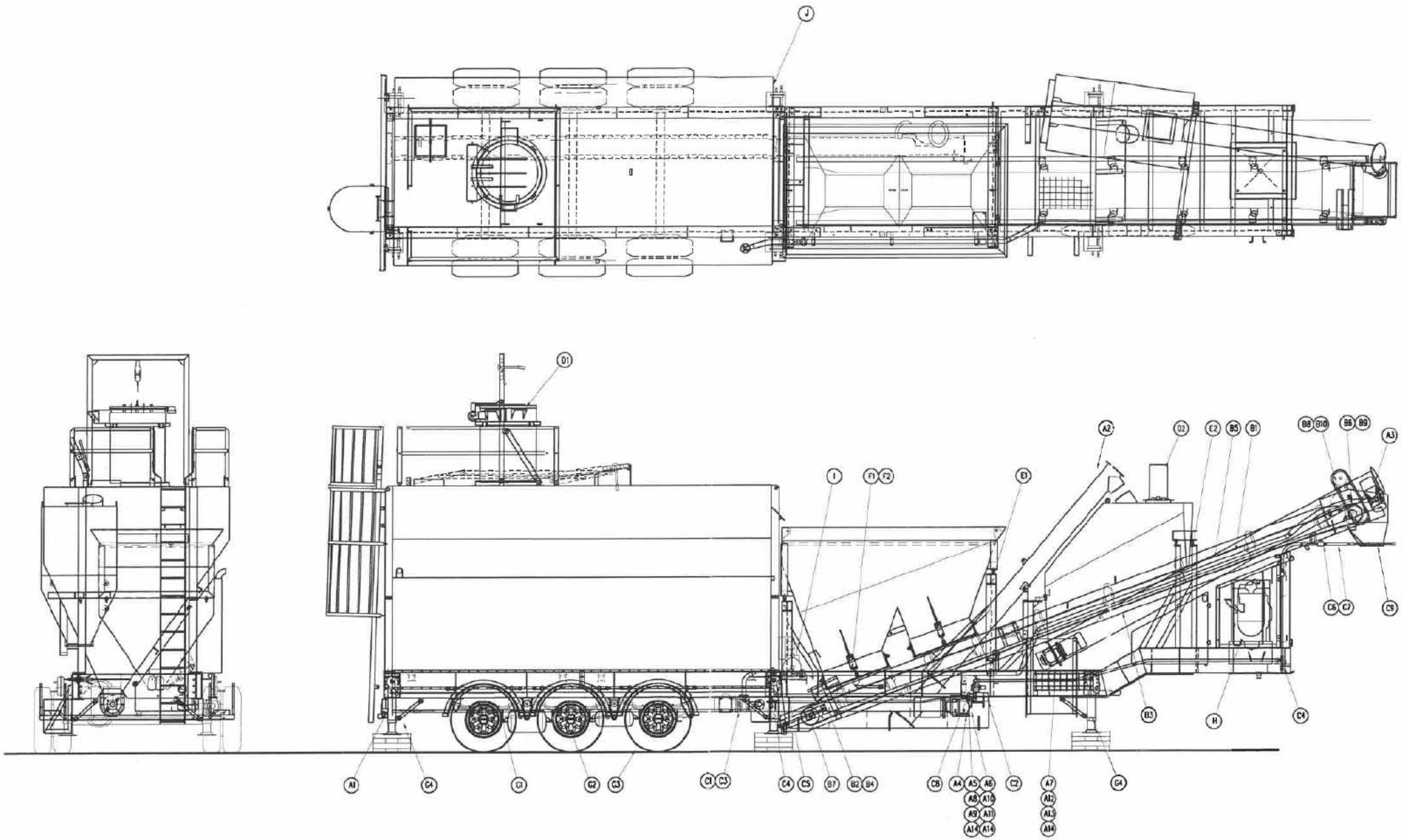
No.	REVISION	DRAWN	DATE	No.	REVISION	DRAWN	DATE

SCALE	1:30	
DRAWN	ERB	10.10.02
CHECKED	-	-
TRACED		
DESIGNED	-	-
APPROVED		

Sunstate Consulting & Engineering

MOBILE CONCRETE BATCHING PLANT
50 Tonne STORAGE SILO 50m/hr TRI-AXLE
INSTALLATION ARRANGEMENT

DRAWING No. A1
M050-011
REVISION



DATE OF LAST EDI04/10/2004-07.56

Sunstate Consulting & Engineering
Manufacturing Concrete Batching–Quarrying–Materials Handling Equipment
157-161 COBALT STREET, CAROLE PARK 4300. BRISBANE.
TELEPHONE (07) 3879 3288 FAX (07) 3879 3275

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
PROJECTION IS THIRD ANGLE

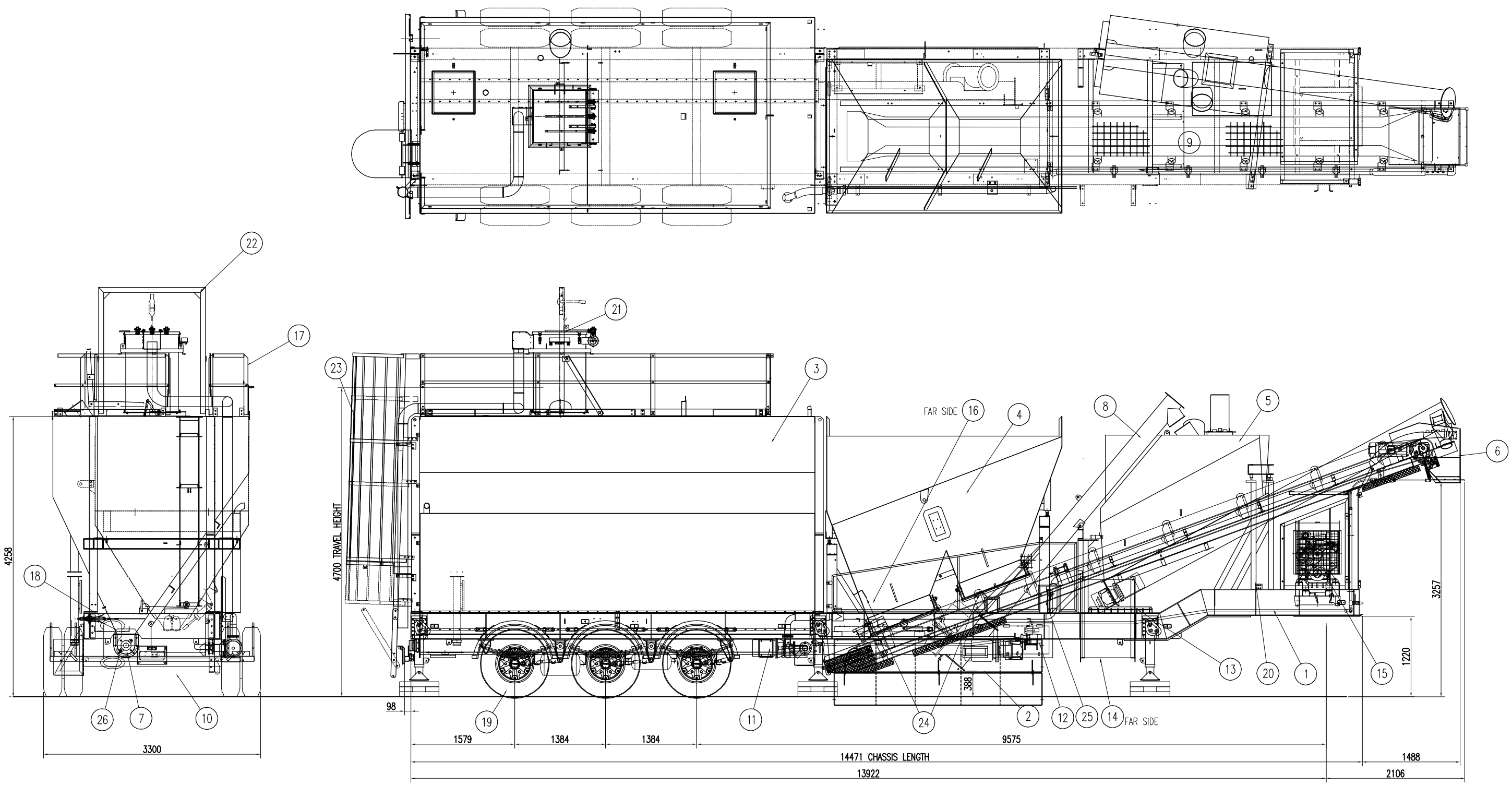
No.	REVISION	DRAWN	DATE	No.	REVISION	DRAWN	DATE

SCALE	1:30	
DRAWN	J.B.H	29-01-97
CHECKED	-	-
TRACED		
DESIGNED	-	-
APPROVED		

Sunstate Consulting & Engineering

MOBILE CONCRETE BATCHING PLANT
50-Tonne STORAGE SILO 50m/hr TRI-AXLE
SPARE PARTS ARRANGEMENT

DRAWING No. A1
M050-013
REVISION
E F G H I J



							20	2	ADMIX TANKS	800 LT			MK M050-800	13	1	ELECTRICAL CONTROL SYSTEMS &	CABINET			MK M050-900A	6	1	BATCH CONVEYOR	750W			MK M050-700A
26	1	HORIZONTAL SCREW GUARD				MK M050-159K	19	1	TRI-AXLE ASSEMBLY	ADR.APP			YORK	12	1	SECONDARY WATER SYSTEM				MK M050-263A	5	1	CEMENT WEIGH HOPPER	2.8m ^{3}			MK M050-200A
25	1	WATER METER GUARD				MK M050-159L	18	2	CEMENT SHUT OFF PLATE				MK M050-108C	11	1	WATER METERING SYSTEM				MK M050-262A	4	1	AGGREGATE WEIGH HOPPER	8.5m ^{3}			MK M050-300A
24	2	SOLENOID VALVE GUARD				MK M050-159M	17	1	FOLDING HANDRAIL				MK M050-109	10	1	WATER STORAGE TANK	8700 L			MK M050-260A	3	1	CEMENT SILO	50T NOM			MK M050-100A
23	1	LADDER				MK M050-112A	16	1	AIR COMPRESSOR				CF15P	9	1	CEMENT DISCHARGE SCREW	ø350			MK M050-240A	2	1	FOLDING RAMP PLATE				MK M050-160C,D&E
22	1	COLLAPSABLE FILTER FRAME				MK M050-115A	15	1	GENERATOR					8	1	SILO INCLINED SCREW	ø250			MK M050-230A	1	1	CHASSIS ASSEMBLY				MK M050-150A
21	1	REVERSE JET PULSE FILTER	DCT BV20	110V		DUSTCOTECH	14	1	TOOLBOX 452x	803			453 HIGH	7	1	SILO HORIZONTAL SCREW	ø250			MK M050-220A	ITEM	QTY	DESCRIPTION	LENGTH	GRADE	WT(kg)	REMARKS

DATE OF LAST EDIT= 25/10/2006–14.51

CMQ Engineering Pty Ltd.
Manufacturing Concrete Batching–Quarrying–Materials Handling Equipment
157–161 COBALT STREET, CAROLE PARK 4300. BRISBANE.
TELEPHONE (07) 3879 3288 FAX (07) 3879 3275

– ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
– PROJECTION IS THIRD ANGLE

No.	REVISION	DRAWN	DATE
L	WATER PIPEWORK MODIFIED	ERB	05.12

No.	REVISION	DRAWN	DATE
E	CWH & SCREW ROTATED TO MOVE OUTLET OVER GOB HOPPER	SW	5–99
D	HORIZ/INCL SCREWS BACK TO 250NB	SW	1–99
C	UPDATED FOR 300NB HORIZ/INCL SCREW	SW	26–8
B	MODS MADE MACHINE NO. 16	CW	1–10
L	AWH CHANGED TO 210 DOORS; MOVED CLOSER TO BELT	J.B.H	6–96

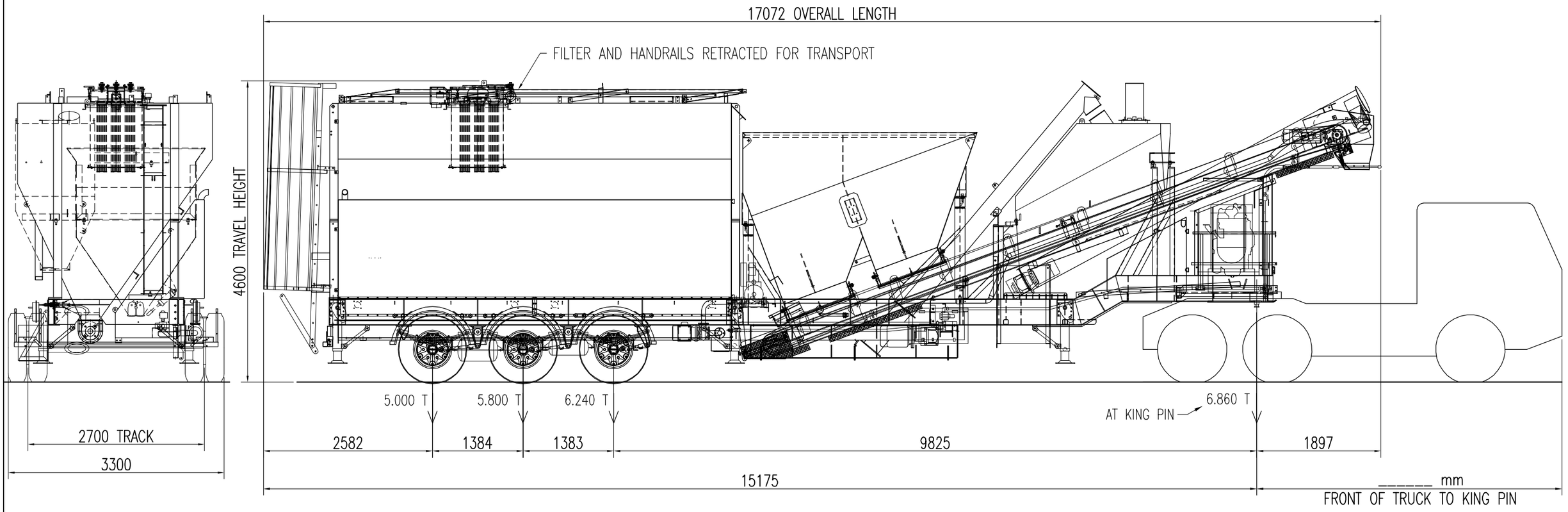
SCALE	1:30	
DRAWN	J.B.H	13–12–95
CHECKED	–	–
DESIGNED		
APPROVED	–	–
JOB COST No		

CMQ Engineering Pty Ltd.

MOBILE CONCRETE BATCHING PLANT

GENERAL ARRANGEMENT

DRAWING No. M050–001 A1



AXLE GROUP LOAD : 17.04 T

LOAD AT KING PIN : 6.86 T

TRAILER WEIGHT = 23.90 T

NOMINAL WEIGHTS SHOWN (WITH GENSET)
WEIGHTS WILL VARY ACCORDING
TO OPTIONS CHOSEN

RUNNING GEAR SPECIFICATIONS

AXLES:
MAKE: VARIOUS SUPPLIERS RATED CAPACITY: 11.5 TONNES
NUMBER OF AXLES: 3 TYRES/AXLE: 4

SUSPENSION:
MAKE: VARIOUS SUPPLIERS RATED CAPACITY: 27.9 TONNES

BRAKES:
MAKE: VARIOUS SUPPLIERS MODEL: TRIAXLE BRAKES
SIZE OF BRAKES: 420mm x 180mm

TYRES:
SIZE: 11R22.5 PLY/LOAD INDEX: 16 SPACERS: 6 x 100mm

M050 – PORTABATCH WEIGHT.DWG

ATTACHMENT 8A – ENVIRONMENTAL MANAGEMENT PLAN

Environmental Management Plan

Mobile Batch Plants, Munster

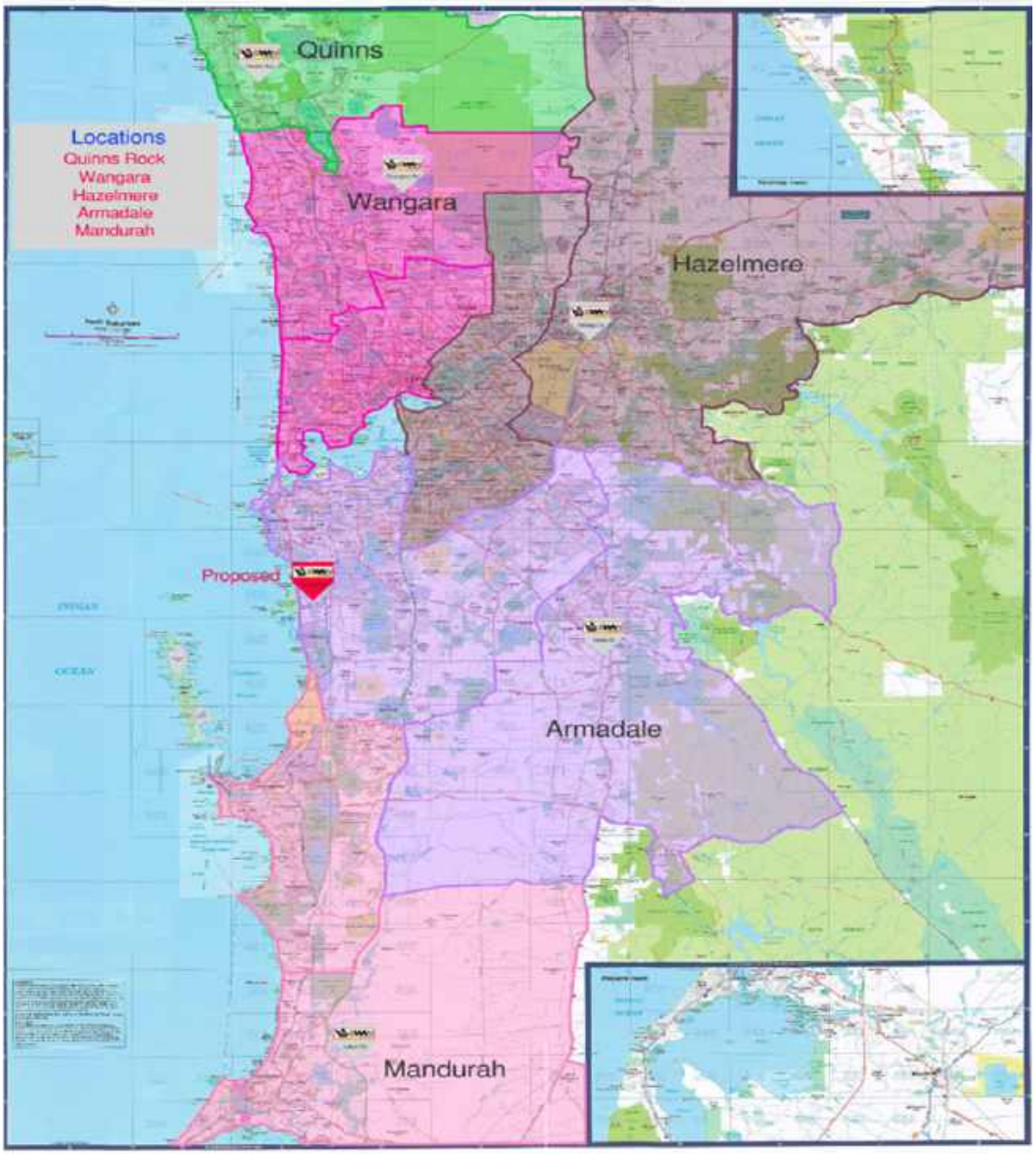
Version	Written By	Reviewed By	Issued By
EMP-001	MJC		PH
	4th December 2025		December 2025

Contents

1.0 BACKGROUND

1.1 Introduction

Swan Concrete operates five (5) concrete batching plants across the Perth Metropolitan Area, along with two mobile batching plants that can be deployed anywhere, enabling the best possible service to all of our customers.



Perth Metro
Concrete Plant Locations

1.2 Purpose of this plan

The purpose of this Environmental Management Plan (EMP) is to ensure:

- The systems, programs and responsibilities for effectively managing Swan Concrete's environmental risks in production and delivery in WA are detailed;
- Opportunities to improve environmental management performance are identified and implemented where practicable;
- Compliance with statutory requirements is achieved; and
- Support of the implementation of SWAN's Environmental and Sustainability Policies.

1.3 Location and Site Environmental Context

While mobile concrete batch plants have a relatively small enviornmental footprint and are temporary in nature, it is proposed that the Mobile Plant/s will be operational whilst a permanent facility is planned and constructed at AdBri's Leath Rd Kwinana, cement plant, Swan Concrete's proposed site location at Russell Rd Munster will provide access to the SW Perth metropolitan area in consideration of:

- Jurisdictional planning schemes;
- Nearby Sensitive Receptors and DWER separation distances;
- Climate impact according to the closest Bureau of Meteorology weather station;
- Topography and soil according to the Landgate SLIP database;
- Risk of acid sulfate soils according to the Landgate SLIP database;
- Pre-existing contamination according to the DWER Contaminated Sites database;
- Flora and Fauna according to the Nature Map database;
- Environmentally Sensitive Areas according to the Landgate SLIP database;
- Threatened Ecological Communities according to the Commonwealth Protected Matters Database;
- Bush Forever Sites according to the Landgate SLIP database;
- Aboriginal Heritage Sites according to the Aboriginal Heritage Inquiry System; and
- Municipal Heritage Sites according to the State Heritage Offices 'inHerit' database.

The proposed location of the mobile batch plant is Lot 242 Russell Road Munster. The proposed location and layout of operations is shown in Figure 1 and 2 respectively.

An option, (outlined) to add identical plant alongside is illustrated. The output capacity, of a single plant is 30m3-35m3/hr, this will allow for doubling of production. A separate loader will be required on site to achieve the proposed throughput.

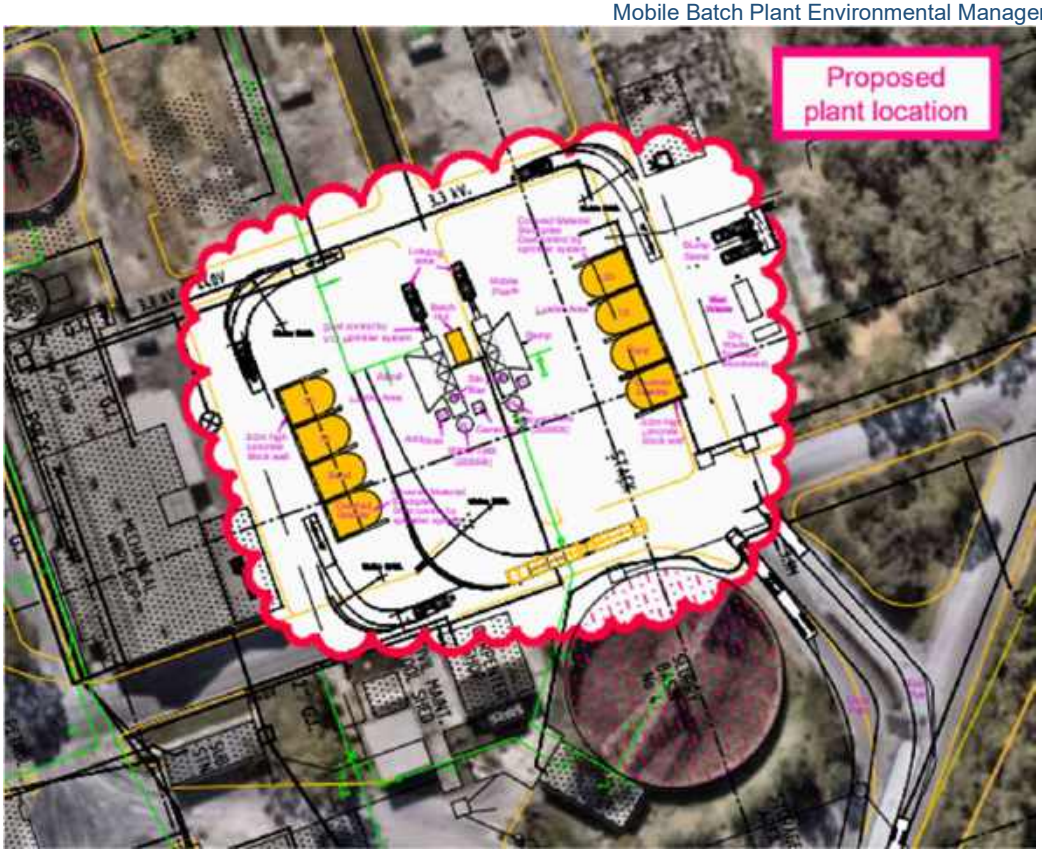


Figure 1 Proposed Location of Mobile Concrete Batch Plant, at Lot 242 Russell Rd Munster

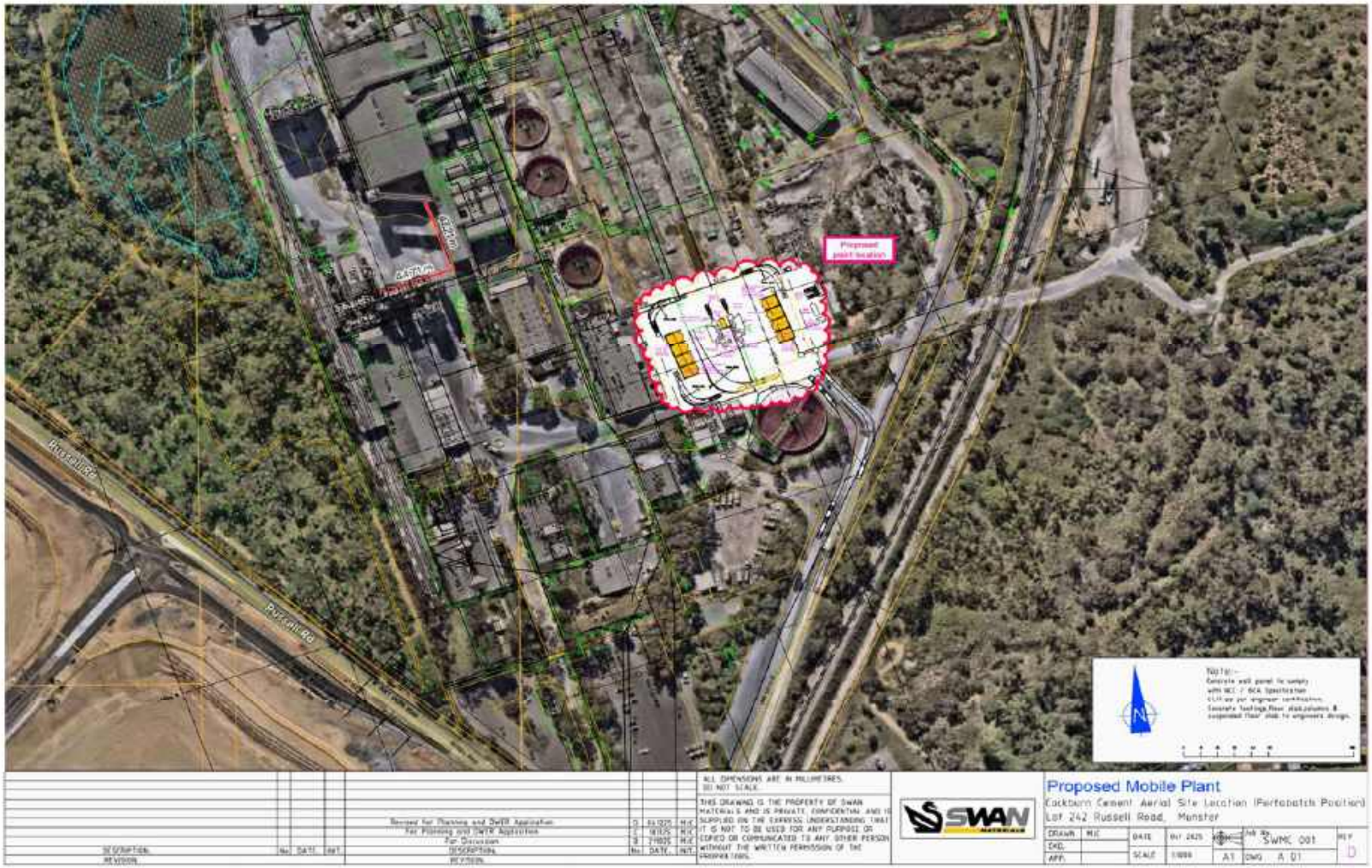


Figure 2. Proposed site layout

1.4 Mobile Batch Plant Processes

Mobile batching plants produce concrete by mixing cement with sand, aggregate, additives, and water. The mixture is combined in agitator trucks onsite and transported offsite for use.

1.4.1 Raw material delivery

Raw materials (sand and aggregate) will be delivered to site in B Double, Road Train configurations up to 55 tonne payload, (cement) in semi-trailers 25 tonne with admixtures contained in IBC's, topped up regularly through suppliers. The admixtures used will be Sika Air, Sika Retarder N, Sika Eco WR and possibly coloured pigments. 20mm aggregate, 10mm aggregate and sand, each fitted with sprinklers to minimise dust emissions.

1.4.2 Cement storage

Cement delivered in purposed designed pressure tankers into 50 tonne capacity silo on the plant. During filling of the cement silo, displaced air is passed through a filter to capture cement dust. Cement silo filters used are Dustcotech filters with an area of 35m^2 of filter medium. Swan Concrete will hold readily accessible spare filter bags at site in the event of a bag failure. Stock control and monitoring cement usage each pour will ensure filling will not exceed silo capacity. A full silo will enable the manufacture of approximately 125m^3 of concrete.

1.4.3 Concrete manufacture

A front-end loader (up to 2) will be used to load pre-moistened aggregates and sand directly into the aggregate weigh hopper. Up to 10 agitator trucks will be used to deliver batches of concrete. As required, the concrete agitator trucks reverse into the load sock area. They are loaded with weighed quantities of aggregate, sand and cement which are dispensed using an automatic control system. Any dust generated from agitator charging will be controlled with a sprinkler system at the point of loading. The concrete agitator trucks will then move to the slump stand, where water is added to adjust the workability of the concrete mixture. The potable water used in the batching process will be stored in 2 x 20 kL storage tanks.

1.4.4 Waste and Recycling

Agitator trucks returned from the job will wash out at the recycling area. Washout will be stored in a lined and bunded pit. Any opportunity to recycle waste water will be assessed diverting water for reuse into one of the 20kL storage tanks. Solid waste will be periodically removed to recycling facilities.

2.0 ENVIRONMENTAL MANAGEMENT FRAMEWORK

2.1 Environmental Management Policy and Systems

Swan Concrete, as a business unit of SWAN Materials Pty Ltd, complies with the Group Environmental Policy and Group Environmental Standards. In achieving this, Swan Concrete commits to maintaining a system that will:

- Protect the environment;
- Comply with environmental legislation;
- Set internal objectives and measurable targets to continually improve our environmental management systems.

All employees and contractors must fulfil environmental responsibilities under the EMP.

2.2 Environmental Management Structure and Responsibility

The Production Manager is responsible for ensuring that this EMP is implemented and maintained. Key roles and responsibilities of personnel are outlined below (Table 1).

2.3 Regulatory Requirements

2.3.1 Relevant Legislation

Key environmental legislation relating to activities being undertaken on-site includes:

- Environmental Protection Act 1986
- Environmental Protection Regulations 1987
- Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998
- Environmental Protection (Unauthorised Discharges) Regulations 2004
- Environmental Protection (Noise) Regulations 1997
- National Environment Protection (Ambient Air Quality) Measure (as amended 2015)
- National Greenhouse and Energy Reporting Act 2007 (Cth)
- Environment Protection and Biodiversity Conservation Act 1999 (Cth)

2.3.2 Australian Standards, Guidelines and Other Regulatory Requirements

Australian Standards, guidelines and other requirements applicable to this EMP include:

- AS 3780 The Storage and Handling of Corrosive Substances;
- AS 14001 Environmental Management Systems;
- AS 31000 Risk Management.

2.3.3 Permits and Licenses

Swan Concrete has in place the following environmental licence for this work:

Licence / Approval	Description	Registration Numbers	Person/Position Responsible
EP Act Part V	Schedule 1 – Category 77: Concrete Batching or Cement Product Manufacturing	R1569 Serial 826/2003 or R1711 Serial SCE 959/2004	[redacted] General Manager

2.4 Environmental Induction and Training

Site inductions will be given to all personnel, including contractors. These inductions will include safety aspects as well as relevant environmental issues as detailed within this EMP. At a minimum, inductions shall include:

- Chemical storage and handling;
- Spill control and clean up;
- Dust and/or litter management;
- Fuel management;
- Environmental incident reporting.

The HSE Manager will be responsible for ensuring all personnel have received a site induction before commencing work on the site. Records of this Induction will be maintained by HSE Manager.

2.5 Emergency Contacts and Response

If a safety or environmental emergency occurs, works will immediately cease in the vicinity of the incident. Swan Concrete's General Manger will be immediately contacted and will be responsible for implementing the required emergency response. Relevant emergency agencies will be contacted as required. The below table shows key emergency contacts and details.

SWAN CONCRETE EMERGENCY CONTACTS AND RESPONSE

Fire, Ambulance and Police: 000

Name	Role	Contact Details (Phone & Email)
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

Environmental Incidents

[redacted]	As well as following internal reporting procedures, report significant incidents to SWAN Corporate including: • Significant Spills / leaks • Serious Complaints • Non-conformances

In the event of a pollution emergency that is not life threatening, advice can be sought from the DWER Pollution Watch Hotline 1300 784 782.

Reptile Relocation/Injured Animals

WILDCARE HELPLINE (DBCA) 24HR SERVICE - 9474 9055.
Note: a fee/donation is typically expected to cover the travel costs of Wildlife volunteers.
Note: DBCA current advice for snakes is to 'search online for a snake removal service near you'

3.0 ENVIRONMENTAL RISK MANAGEMENT

Swan Concrete has developed an environmental risk register and it is updated annually by the Management Team.

3.1 Environmental Risks and Controls

Proposed activities to be undertaken have been identified below and assessed to determine the potential environmental impacts and the risks they pose. For activities that may potentially result in adverse environmental impacts, control measures have been identified and will be put in place to either eliminate or mitigate the risks posed.

3.2 Hazardous Materials/Substances and Dangerous Goods

Incorrect management of hazardous substances and dangerous goods can result in soil, water and air contamination. This section addresses management measures that will be implemented in order to reduce the environmental risks associated with hazardous substances and dangerous goods.

3.2.1 Hazardous Materials/Substances and Dangerous Goods Storage

A Hazardous Substances/Dangerous Goods Register is maintained for all projects by the HSE Manager. This register includes the chemical name, description, and classification as either hazardous or dangerous. No dangerous goods will be stored on site. It is the responsibility of the Client to supply diesel to the onsite generator, FEL and trucks.

Storage and handling of chemicals will be in accordance with relevant Australian Standards, legislation and the information provided on the SDS. A chemical / hazardous substance risk assessment is maintained for all of Swan Concrete's operations.

3.2.2 Safety Data Sheets

Safety Data Sheets (SDSs) are held for all potentially hazardous chemicals and will be stored with the mobile plant. All SDSs are maintained in their current version and will be less than five years old.

3.2.3 Spill Management and Containment

All chemicals will be stored in bunded areas or on drip trays which can contain 110% of the largest chemical container's volume. All chemical storage areas will be checked regularly to ensure that no spills or leaks have occurred.

Management of any spills will be done according to the Group Spill Management and Reporting standard which includes a Spill Notification Protocol.

The following steps provide the general response strategies to be implemented on discovery of a spill, regardless of size, when safe to do so.

ASSESS	-	Assess the situation for safety and capability
CONTROL	-	Stop it at the source, or slow the leak or spill
CONTAIN	-	Prevent the spill from spreading to other areas
CLEAN UP	-	Remove all material that have been impacted

3.2.4 Notification of Spills

Swan Concrete will follow the Spill Notification Protocol as part of the Group Spill Management & Reporting Standard.

Spills will also be reported to the Client.

3.3 Waste Management

Swan Concrete aims to minimise waste going to landfills by implementing the principles of 'reduce, reuse and recycle' wherever possible. It is in our commercial interest and culture not to generate waste.

Waste removal and disposal will be undertaken in accordance with Main Contractors instructions to the adjoining area.

3.4 Process Wastewater

Process water from the cleaning of agitator bowls will be recycled, if possible as outlined in Section 1.4.4.

3.5 Surface Water and Stormwater Management

Swan Concrete commits to:

- Monitor the site regularly to ensure that stormwater is appropriately managed on-site;
- Prevent waste streams (solid and liquid) from interacting with stormwater;
- Store hazardous materials appropriately and away from stormwater interaction;
- Report any spills as incidents;
- Clean up any spills immediately using appropriate methods and materials.

Sources of potential stormwater contamination and control measures in place are identified in Swan Concrete's environmental risk register.

3.6 Air Emissions

Swan Concrete will adhere to the National Air Quality Standards for ambient air quality and will prevent uncontrolled emissions of substances to the air from its operations.

The main air emissions risk is likely to be dust (TSP, PM_{10}, $PM_{2.5}$). Sources of potential dust emissions and control measures in place are identified in Swan Concrete's environmental risk register.

3.7 Noise Emissions

Swan Concrete understands its obligations under the Environmental Protection (Noise) Regulations (1997) is to prevent the generation of offensive noise and, where prevention is not possible, to minimise the generation of offensive noise. Batching activities will occur between 8.00am and 4.00pm daily, when concrete is required.

Swan Concrete aims to ensure that its activities do not generate excessive noise for nearby sensitive receptors. Any noise complaints will be recorded, investigated and appropriate action to reduce any noise impacts will be implemented.

3.8 Water and Energy Efficiency

Swan Concrete recognises the environmental and financial benefits of managing the use of limited resources, such as energy and water. Swan Concrete makes the following commitments:

Water:

- Any leaks will be isolated and repaired as soon as possible;
- Opportunities to use water sources other than town water will be investigated and implemented if feasible;
- We will monitor our water use against water-efficiency targets;

Energy and Greenhouse Gas Emissions:

- We will monitor energy use against energy-efficiency targets;
- We will review and report energy consumption internally and contribute to SWAN's annual National Greenhouse Gas Emissions and Energy Report.

4.0 REPORTING, MONITORING AND REVIEW

4.1 Incident Reporting

Swan Concrete will record and report all environmental incidents according to its Incident Reporting & Investigation Procedure. Senior site management including the General Manager, Operations Manager and the HSE Manager are responsible and have the authority for handling and investigating any non-compliance, taking action and completing corrective and preventative action.

Environmental incidents are categorised into the following:

- **Critical** - Localised permanent environmental damage or widespread long term (>2y) environmental damage affecting the nearby community or public areas. On-site release of toxic/harmful material great than 30,000 L and Off-site release of toxic/harmful material greater than 10,000 L.
- **Major** - Chronic (long term) environmental damage affecting offsite areas (>2y). On-site release of toxic/harmful material between 10,000 L & 30,000 L. Off-site release of toxic/harmful material between 1,000L & 10,000 L.
- **Moderate** – Acute (short term) environmental damage affecting off-site areas (<2y). Chronic (long term) environmental damage on-site(>2y). On-site release of toxic/harmful material between 1,000 L & 10,000 L. Off-site release of toxic/harmful material between 200L & 1,000L.
- **Minor** - Acute (short term) environmental damage on-site(<2y). On-site release of toxic/harmful material between 200 L &1,000 L. Off-site release of toxic/harmful material between 20 L & 200 L.
- **Insignificant** - negligible/minimal impact on the environment. Temporary/reversible impact (1 month). On-site release of toxic/harmful material up to 200 L. Off-site release of toxic/harmful material up to 20 L.

4.2 Environmental Monitoring and Data Reporting

Swan Concrete will conduct environmental monitoring and reporting in accordance with the SWAN Group's Environmental Monitoring Standard. We are happy to work with our clients to customise monitoring and reporting to suit their needs. As part of the SWAN Group we have well established monitoring and reporting systems in place that satisfy:

- DWER Category 77 licencing requirements;
- National Pollution Inventory Air Toxics Reporting;
- National Greenhouse and Energy Reporting (Scope 1 and 2 greenhouse gas emissions);
- EN 15804:2012+A2:2019 (Scope 3 greenhouse gas emissions and other environmental impacts);
- SASB Construction Materials Sustainability Accounting Standard.

The site shall be visually inspected for any environmental issues on a regular basis. In addition, written monitoring checklists (see Appendix 2) can be completed.

4.3 Environmental Auditing

Swan Concrete does not anticipate undertaking detailed internal auditing for the temporary project beyond the proposed monitoring (see Section 4.2). Detailed auditing can be arranged if required.

4.4 EMP Review

This EMP is a Controlled Document. It can be reviewed with the Client and updated as appropriate. Any update will be distributed to all relevant stakeholders, including personnel/ departments.

4.5 Environmental Schedules

The following Schedules will be used in implementing this EMP.

- Incident reporting, non-compliance and corrective action reporting is recorded (see Appendix 1 for an example) and reported to Swan Concrete's MYOSH software. This form can be utilised for non-compliance and corrective action reports as well as Environmental Incidents and Complaints);
- Site Inspection Checklists (see Appendix 2 for an example of a Checklist);
- Training Register;
- Waste Register;
- Water Efficiency Management Plan;
- Environmental Risk Register.

5.0 APPENDICES

Appendix 1 – Example Environmental Incident Report Form
Appendix 2 – Example EMP Checklist

5.1 Appendix 1 - Environmental Incident Report Form

Swan Concrete Environmental Incident Report Form

1. Company Details

Company Name:		**Location (address, or Site number etc)**
Reported By (person completing this form):	**Phone number:**	**Email address:**

2. Incident Type

Incident Type (check one)

- ☐ Incident – Spill
- ☐ Incident - Other
- ☐ Internal Complaint
- ☐ External Complaint
- ☐ Monitoring Result
- ☐ Internal Audit
- ☐ External Audit
- ☐ Near Miss/Potential Incident

3. Incident/Non-Conformance Details (describe the incident in as much detail as possible).

Location of Incident:	
Date of Incident:	
Time of Incident:	
Person Initially Reporting Incident:	

Incident Details: (Note – for spills, please provide details of the product/chemical name, volume spilled etc).

4. Immediate Actions Taken (describe any immediate actions taken).

5. Investigation Details and Cause of Incident/Non-Conformance.

6. Corrective Actions/Improvements (to avoid a repeat incident/non-conformance).

Proposed Action:	**Person Responsible**	**Date to be Completed.**
Action1.		
Action 2.		

Insert more rows if required for additional actions

7. Approval and Submission (To be signed by Tenant)

Signature	**Printed Name**	**Position**	**Date**

Submit Report (tick method of submission):

- ☐ Email to pth@bgc.com.au
- ☐ Mail/Deliver to:

Swan Concrete internal Use Only	*SMS Report #:*	
Received by:	*Date:*	
Entered into SMS by:	*Date:*	
Incident Closed by:	*Date:*	*Signature:*

5.2 Appendix 2 – EMP Checklist

Site/Address:	
Date:	
Checklist Inspection Undertaken by:	
Signature:	

Control Measures	Conformance			Comment/Action
	YES	NO	N/A	
EMP Status				
When was the EMP last reviewed?				Reviewed _____/_____/____
Staff Awareness				
Are all employees aware of the EMP and their environmental responsibilities detailed within?				
Are all environmental Inductions and Training documented (e.g. in Site Induction Register or Training Register)?				
Housekeeping and Grounds Management				
Is the site (inside facilities) generally clean and tidy?				
Is the external site generally clean and tidy?				
Are gardens and landscaped areas well maintained and free of weeds?				
Are vehicles consistently parking in designated parking bays (i.e. not parking on verges or lawns)?				
Hazardous Material Management				
Are chemicals/hazardous materials stored on-site?				
Are all chemicals and volumes stored listed on the site's Hazardous and Dangerous Goods Register (or similar inventory)?				
Is a current SDS held on-site for each chemical stored?				
Are all chemicals stored adequately (e.g. in bunded areas, on drip trays, segregated appropriately etc.)?				
Are all chemical containers clearly labelled?				
Is there any evidence of leakage from containers, bunds, drip trays, tanks etc.?				
Are appropriate spill clean-up kits/equipment stored on-site?				
Is there any evidence of soil contamination (e.g. staining)?				
Waste Management				
Is recycling occurring on a regular basis?				
Are recycling and general waste bins provided in appropriate numbers (i.e. bins are neither overflowing nor being consistently partially filled).				
Is there any evidence of rubbish/waste being placed in the incorrect waste receptacle (e.g. recyclables in general waste bin, waste oil in recycling bin etc.)?				
Are hazardous waste materials stored appropriately e.g. contained in a bund or drip tray, on sealed surface,				

Control Measures	Conformance			Comment/Action
	YES	NO	N/A	
labelled, undercover?				
Is hazardous/controlled waste (including batteries, tyres, waste oil) being recorded in a Waste Register/Inventory?				
Are fuel drain receptors (or other containers for waste hydrocarbon storage) in good serviceable condition and free from rubbish?				
Domestic Wastewater				
Are servicing/inspection requirements of your Sewage Treatment System up to date?				
Surface and Storm Water Management				
Is there any evidence of untreated wash water (vehicles etc.) entering stormwater systems or infiltrating surrounding soils?				
Is there evidence of rubbish or contaminants (e.g. plastics, paint flakes etc.) entering stormwater systems?				
Are on-site soak wells and stormwater management systems adequate to prevent ponding?				
Air Emission Control				
Are there any detectable odours, emissions, or dust?				
Are emissions from abrasive blasting and/or spray-painting activities being contained in approved areas (e.g. paint booths)?				
Noise Emission Control				
Are there any excessive noise emissions?				
Are silencing devices or noise-reducing barriers installed on appropriate equipment?				
Water and Energy Efficiency				
Have all plumbing fixtures (taps, toilets, showers etc.) been checked and any leaks repaired?				
Has there been any excessive water use (either intentional or accidental) noted?				
Is irrigation occurring in line with Water Corporation guidelines (i.e., compliance with watering days, winter sprinkler bans etc.)?				
Are monthly energy bills/meter readings being monitored?				
Are facilities routinely checked to ensure unnecessary equipment (e.g. lights, computers etc.) are turned off?				
Other observations/comments				

ATTACHMENT 8B – DUST MANAGEMENT PLAN

Dust Management Plan
Swan Concrete
Lot 242, Russell Road, Munster, WA 6166

Version	Written By	Reviewed By	Issued By
DMP-001	MJC	PH	CP
	11th December2025	-- December 2025	-- December 2025

Disclaimer

This Dust Management Plan has been prepared in a manner that can be easily read by a person with a legitimate interest in the environmental status of the site, such as the owner, the occupiers, advisors and regulatory agencies. It has been prepared internally by Swan Materials Pty Ltd using all professional skill and care in the timeframes afforded. The authors have relied upon reports, data, surveys, plans, photos, interviews and other information provided by external organizations and individuals within the organization. This plan must be read in its entirety as key sections are linked. No other warranty, expressed or implied, is made as to the content of this document.

Company Structure

Swan Concrete is a subsidiary of Swan Materials Pty Ltd. The Australian parent company of Swan Materials is Adbri Pty Ltd, which is part of CRH plc.

CRH plc is a building materials provider headquartered in Dublin. The company operates in 28 countries through over 3,800 locations, providing materials and integrated services for construction projects in transportation, infrastructure, buildings, and outdoor living sectors.

CONTENTS

LIST OF TABLES

LIST OF FIGURES

1 INTRODUCTION

1.1 BACKGROUND

Swan Materials Pty Ltd (Adbri Pty Ltd) entities have been a long-term manufacturer of construction products and held numerous licenses for prescribed activities. Swan Concrete currently holds 5+ registrations for concrete manufacturing.

Swan Concrete proposed Munster Plant is located within the Cockburn Cement Plant at Lot 242 Russell Road, Munster, Western Australia. Cement & Lime manufacturing activities have been operating from this location for over 70 years.

The proposed plant, (Mobile Portabatch) is temporary. It is due to be replaced by a permanent facility to be located at Cockburn Cement Leath Rd Naval Base on complex. This proposed Munster Plant is time limited to 5 years, subject to review as determined by parent company CRH plc.

The premise is in the general industrial zone within the City of Cockburn, Local Government Area.

The main elements of the facility are listed below:

- 2 Concrete mobile batch plants – Maximum Capacity 100 m3 per hour and average production rate is 40 m^3 per hour/plant;
- 2 x 50 tonne silos storing GP & GB cement;
- High-level alarms, reverse pulse cleaning filters to silos & cement weigh hoppers & pressure relief valves;
- 8 x 70m2, Raw material aggregate storage areas (with sprinkler controlled dust suppression)
- 2 x 8.5 tonne aggregate storage bin compartments;
- 2 x Above ground waste pits, each 25 m^3;
- 2 x 10 m3, 1x 40 m3 below ground pits;
- 2 x 20 kL water storage tanks;
- 1 x 25 kL fuel tank.

1.2 PURPOSE OF THIS PLAN

The purpose of this Dust Management Plan (DMP) is to ensure appropriate site management of dust in order to minimise the:

- Risk to human health; and
- Impacts of dust generating activities on surrounding sensitive receptors.

The DMP has been prepared as part of Swan Concrete's "Cintellate" management system and is consistent with the Swan Materials/ CRH plc Environmental Policy. The scope of this DMP covers the following:

- Relevant legislation and regulatory requirements for air quality associated with dust;
- Site setting and dust contextual information;
- Site aspects and risk assessment of potential air quality impacts arising from operations;
- Safeguards and mitigation measures to manage air quality impacts during operations;
- Roles and responsibilities of those involved in the design and implementation of air quality management and controls;
- An effective monitoring framework to assess the effectiveness of the controls implemented.

2 LEGISLATIVE AND REGULATORY COMPLIANCE

2.1 RELEVANT LEGISLATION

Key legislation relating to air quality management at the proposed Swan Concrete's Munster site are:

- Environmental Protection Act 1986;
- Environmental Protection Regulations 1987;
- Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998;
- Environmental Protection Act 1986 – Environmental Protection (Unauthorised Discharges)

Regulation 2004;

- Local Government Act 1995;
- National Environment Protection Council Act 1994;
- National Environment Protection Measure for Ambient Air Quality 2003, reviewed 2021.

Ambient air quality goals set in the National Environmental Protection (Ambient Air Quality) Measure (NEPM) 2016 recommend that PM10 concentration should not exceed 50µg/m3, and PM2.5 should not exceed 25µg/m3 over a 24-hour averaging period.

3 SITE SETTING

3.1 LOCATION AND SURROUNDS

Swan Concrete's proposed Muster site is located within the Cockburn Cement complex on approximately 228 hectares of freehold land in the City of Cockburn, adjacent to Rockingham, Russell and Holmes Roads with the following coordinates:

	Lat	Long
North West	-32.139022	115.790613
North East	-32.139022	115.807880
South	-32.152342	115.799969

Figure 1 shows the general location of the site. Figure 2 shows the premise boundary and layout in more detail.

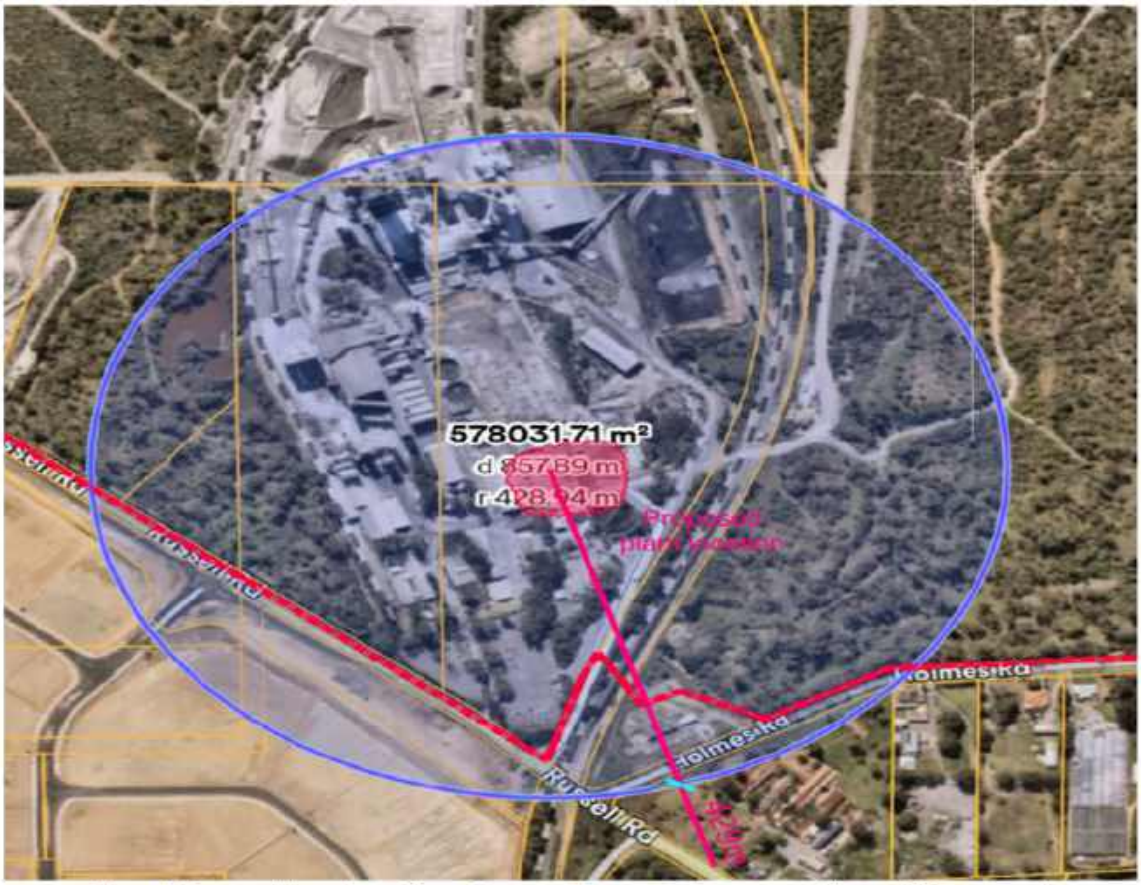


Figure 1 Proposed Location of Swan Concrete Munster and nearest residence (429m approx)

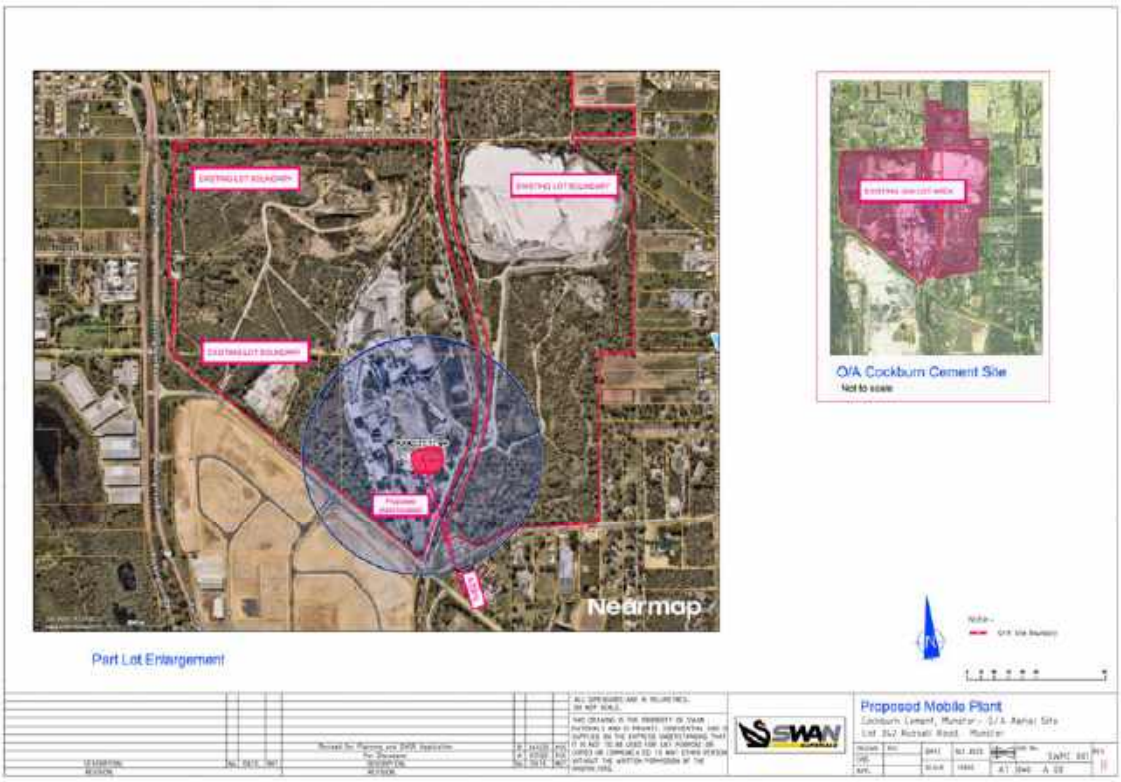


Figure 2 Premises boundary and proposed plant location

3.2 CURRENT PLANNING ZONES

According to the Plan WA database (DPLH 2025), the following planning zones are applicable:

- Hope Valley -Wattleup Redevelopment Act 2000
- Hope Valley -Wattleup Redevelopment Project Master Plan
- Lattitude 32 Industry Zone Design Guidelines
  General Industrial Zone

3.3 CLIMATE

The climate of the southwestern region of Western Australia is characterised by the Koppen and Geiger Climate Classification as CSA – a Mediterranean climate featuring long, hot, dry summers and mild, rainy winters.

The closest official Bureau of Meteorology (BoM) weather station data is from Jandakot Aero(#9172), approximately 9.4km North East, where quality-controlled climate data is available between 1940 and 2025. The minimum average monthly temperature ranges from approximately 8.2˚C to 17.6 ˚C and maximum average monthly temperature ranges approximately 19˚C to 33.5˚C (Figure 3).

Rainfall of >1mm averages 57.9 days per year, with the maximum mean rainfall being 132.8 mm during July. The annual average rainfall received at this station is approximately 652.1 mm per annum (Figure 3).

Winds are prevailing easterlies in the morning and southwesterly in the afternoon (Figure 4).

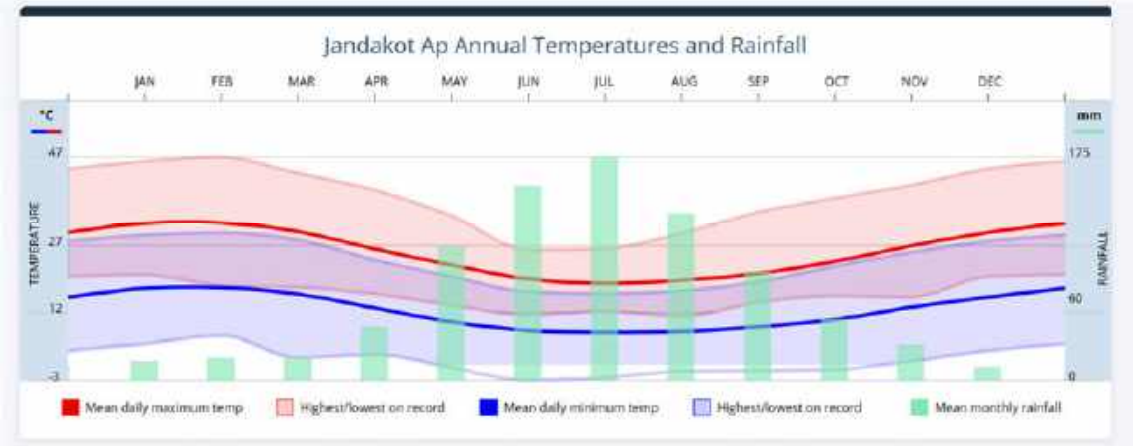


Figure 3 Rainfall and Temperature Averages at closest BoM Weather Station – Jandakot Aero

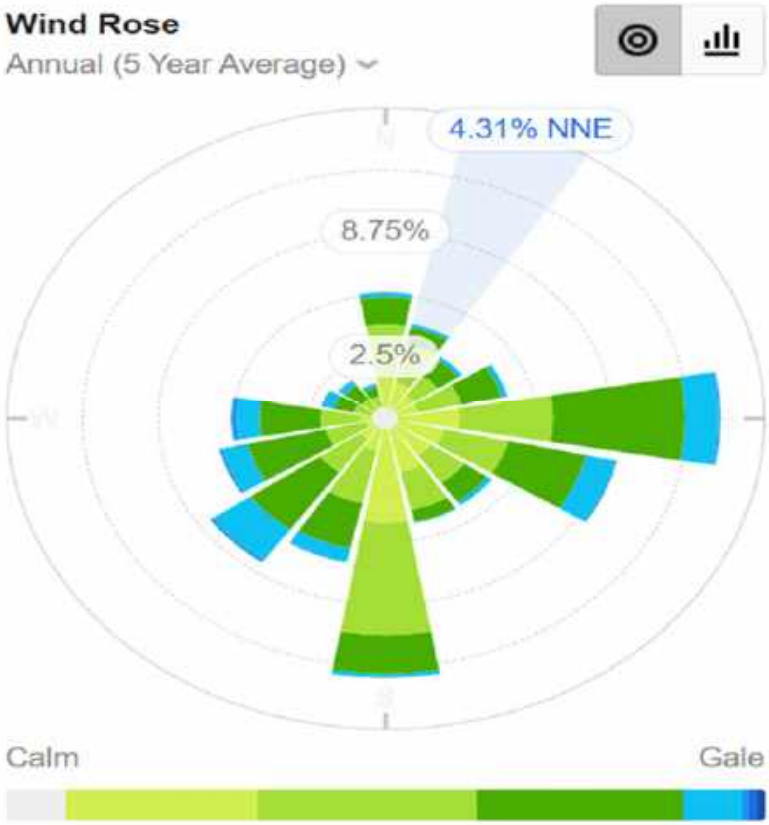


Figure 4 Predominant Wind Speed and Direction at closest BoM Weather Station – Jandakot Aero

3.4 SENSITIVE RECEPTORS / SEPARATION DISTANCE

Sensitive land uses are defined as those where people live or regularly spend time and which are therefore sensitive to emissions from industry (Environmental Protection Authority 2015). Sensitive land uses include but are not limited to residences, hospitals, and nursing homes, short-stay accommodation, schools, childcare, and other educational facilities, and some public buildings. The sensitivity of land use may also be proportionate to the size of the population affected by the activity.

Table 1 Closest Sensitive Receptors

Type of Receptor	Closest Distance to Proposed Plant Addition
Residence	429 m to House on Holmes Rd
Industrial Development Park	364 m to North East Boundary Adjacent to Russell Rd

The Portabatch plant and area available on the site allows for the plant location to be modified to < or = to 500m from nearest residence ,

The Environmental Protection Authority (WA) published guidelines in 2005 to address generic separation distances between industrial and sensitive land uses to avoid conflicts between these land uses (EPA 2005). In 2015, the DWER sought to increase the separation distances but withdrew the guidance to avoid confusion. More recently, the DWER has proposed "screening distances" as they relate specifically to odor impacts on sensitive receptors (draft only) (DWER 2018). All are shown below in Table 2.

Table 2 Separation and Screening Distances by Premises Type

Industry Category	Separation Distance (EPA 2005)	Separation Distance (DWER 2017)	Screening Distance (DWER 2018 - draft)
Category 77	300 m – 500 m	500 m	N/A

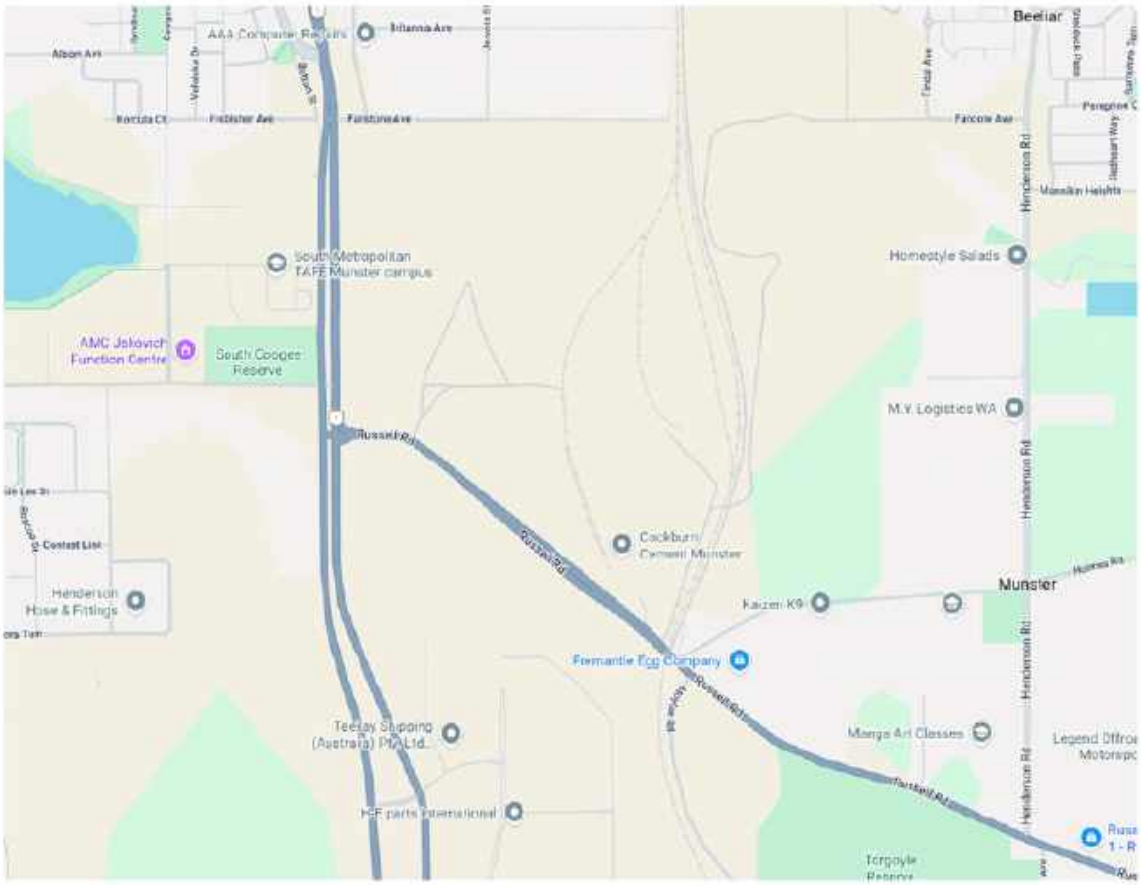


Figure 5 Other receptors near Existing Cockburn Cement/ Swan Concrete Addition

4 DUST OVERVIEW

4.1 DUST DEFINITION

The Department of Water and Environmental Regulation (DWER) defines dust as the generic term used to describe solid airborne particles generated and dispersed into the air by processes such as handling, crushing, and grinding of organic or inorganic materials such as rock, ore, metal, coal, wood or grain and stockpiling of materials and windblown dust (DEC 2011). Most dust particles are categorised based on their size (equivalent aerodynamic diameter) and can cause potential adverse environmental and human health effects in certain circumstances (Tillman 2007).

4.2 TOTAL SUSPENDED PARTICULATE (TSP)

Total Suspended Particulates (TSP) are airborne particles less than 50 µm in size. The larger particles of this fraction (PM10-PM50) may be referred to as "nuisance dust" and refer to potential Impacts on aesthetic environments rather than human health impacts.

4.3 PARTICULATE MATTER (PM10)

Particulate matter smaller than 10 µm (PM10) remains suspended for longer periods and can Penetrate into the lungs, causing adverse health effects. The PM10 fraction is termed "thoracic Particles" and may be inhaled into the upper part of the airways and lung (DEC 2011).

4.4 PARTICULATE MATTER (PM2.5)

Particulate matter smaller than 2.5 µm (PM2.5) are fine particles that are inhaled more deeply and lodge in the gas exchange region (alveolar region) of the lung and are commonly known as "respirable dust." It is considered that these particles are of most concern to human health and, if contaminated, may pose an additional risk through the absorption of chemicals in the blood. (DEC 2011).

5 SITE ASPECTS AND IMPACTS

5.1 SITE PROCESSES

The batching plant produces concrete by mixing cement with sand, aggregate, additives, and water. The mixture is combined in agitator trucks onsite and transported offsite for use. A schematic overview of the process is presented as part of the conceptual site model in Figure 7.

5.1.1 Raw material delivery

Raw materials (cement, sand, aggregate, and various additives) are delivered to the premises via the existing Russell Road entrance. The delivery trucks are fitted with tarpaulin covers that can be activated electrically or manually to cover the material to control dust emissions. In addition, aggregates and sand are pre-moistened at the source to reduce dust emissions further when unloading on site. The raw materials are tipped from the covered trucks directly into one of four material bins: 20mm aggregate, 10mm aggregate, 2mm aggregate, and sand for each plant.

5.1.2 Hopper and material feeding

A front-end loader is used to load pre-moistened aggregates and sand into the weigh hopper. The aggregate weigh hopper is integral to the Portabatch Mobile Plant. See below diagram of Mobile Plant configuration.

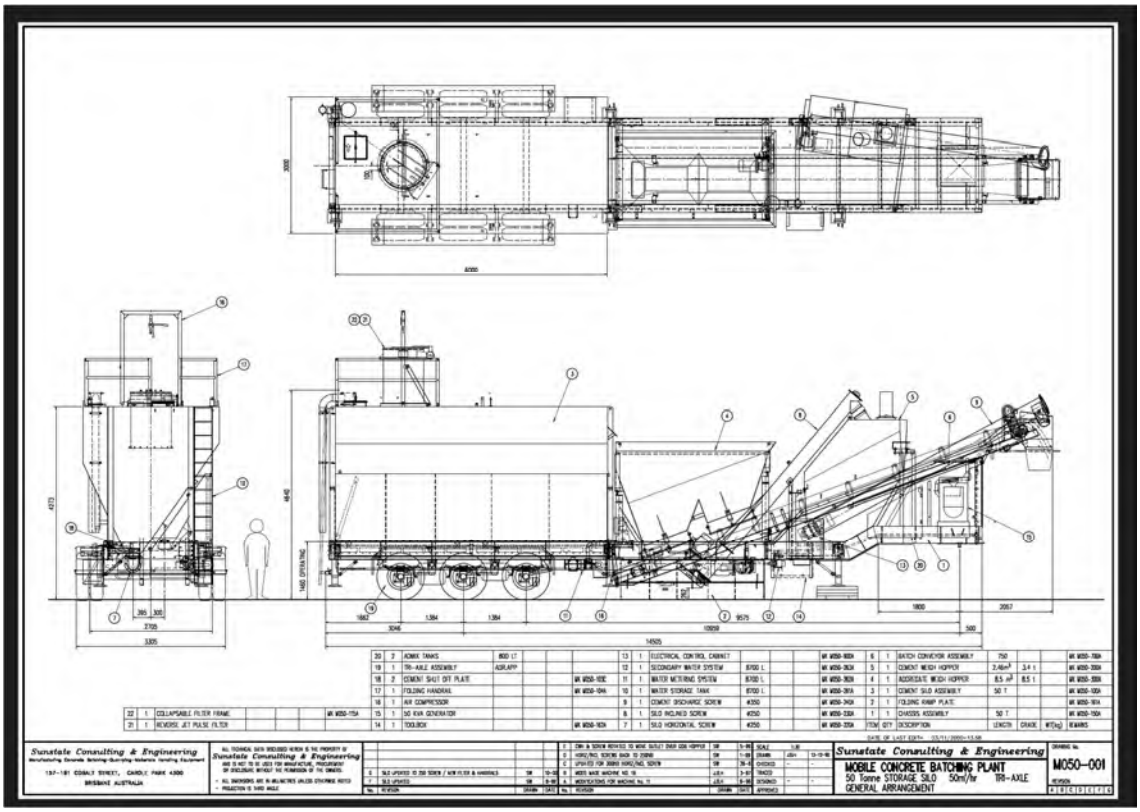


Figure 6 Portabatch Mobile Plant Diagram

5.1.3 Cement storage

Cement used in the manufacturing process is delivered by a cement pneumatic tanker and stored in internal silo comprising 50 tonnes of storage capacity per mobile plant. The dry cement is pumped from the truck via a hose into the cement silos under slight negative pressure. During filling of the cement silos, displaced air is passed through a filter to capture cement dust. Cement silo filters used are Dustcotech filters with an area of 35m^2 of the filter medium. Swan Concrete holds readily accessible spare filter bags at its maintenance subcontractors' premises. The cement silos are fitted with high and low-level alarms to prevent overfilling, and optical instrumentation is installed in the office/control room to inspect cement levels before filling.

5.1.4 Concrete manufacture

Agitator trucks are used to deliver batches of concrete. As required, the concrete agitator trucks reverse under the load out chute. They are loaded with weighed quantities of aggregate, sand, and cement which have been dispensed using the automatic control system. The concrete agitator trucks then move to the slump stand, where water is added to check, adjust the workability of the concrete mixture. The water used in the batching process is a mixture of bore water and partially cleaned process wastewater. The wastewater is stored in two above-ground tanks. Additives are also stored in IBC'S that are connected to flow meters, enabling the batch water to be dosed for the correct amount of admixture before discharge into the truck agitator. A computer system is used to enable regulation of the automated production facility from the plant control room . The computer system is designed to monitor the operation of conveyors, material levels in silos, storage bins, and admixture tanks.

5.1.5 Recycling

Agitator trucks returned from job sites wash out at the recycling area. Stone and sand drop out in the recycle pit while the wash water particles into two above-ground settlements pits. Suspended solids can settle through a primary and secondary stage tank treatment connected by a weir. The partly cleaned wastewater is then

pumped from the secondary stage treatment basin into two water tanks for re-use in the production process. Solid recyclables are reused back in the production process. Regular removal of waste is managed at nearby recycling facilities by Concrete plant personnel.

5.2 SUMMARY OF POTENTIAL DUST SOURCES

The following site operations have the potential to cause offsite dust emissions:

- Aggregate and sand movement – delivery, loading and unloading, conveyor transfer points.
- Cement unloading
- Discharging from silos.
- Vehicle movement onsite (partially hardstand); and
- Vehicles leaving the premises with dust on wheels.

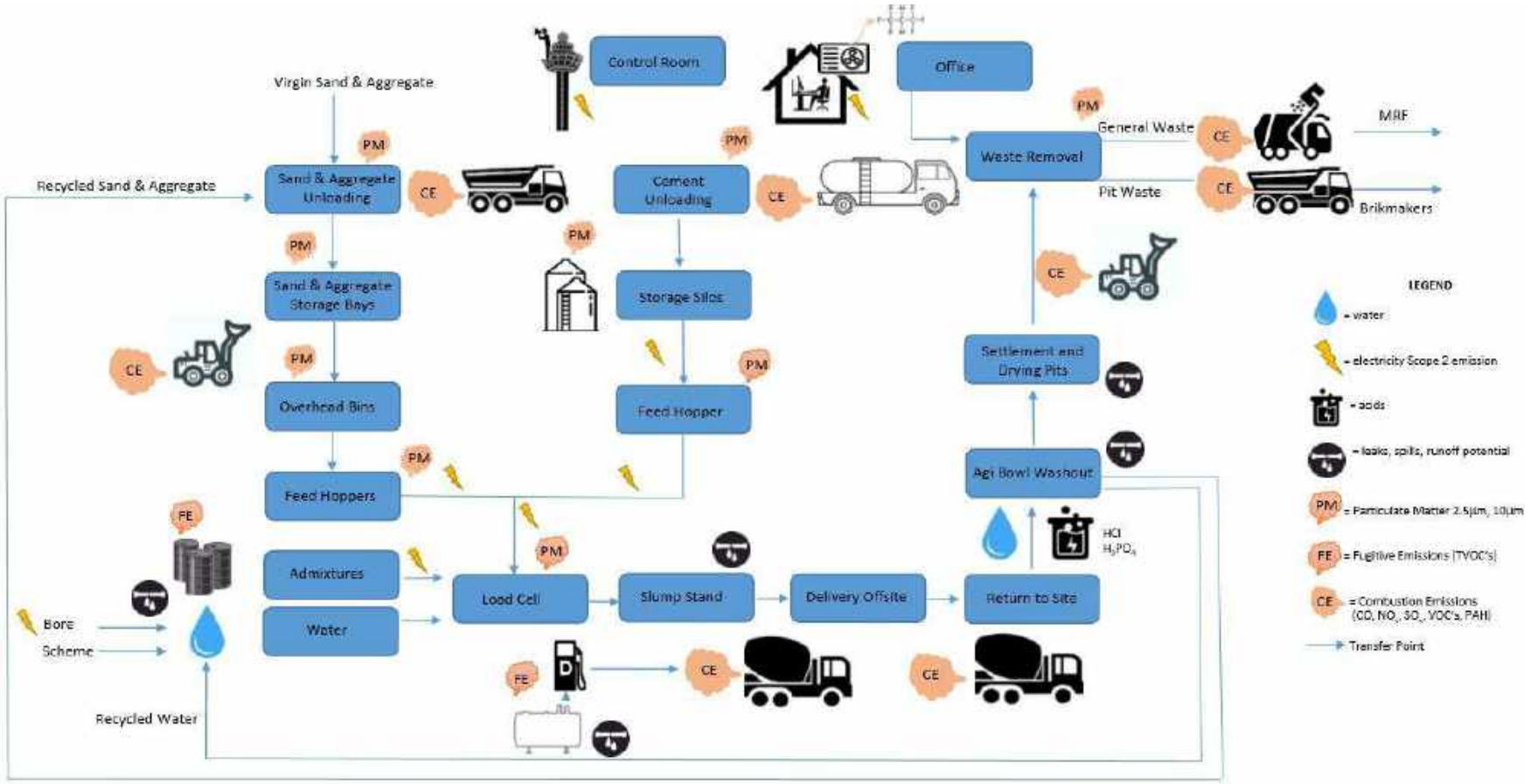


Figure 7 Conceptual Site Diagram Swan Concrete Munster

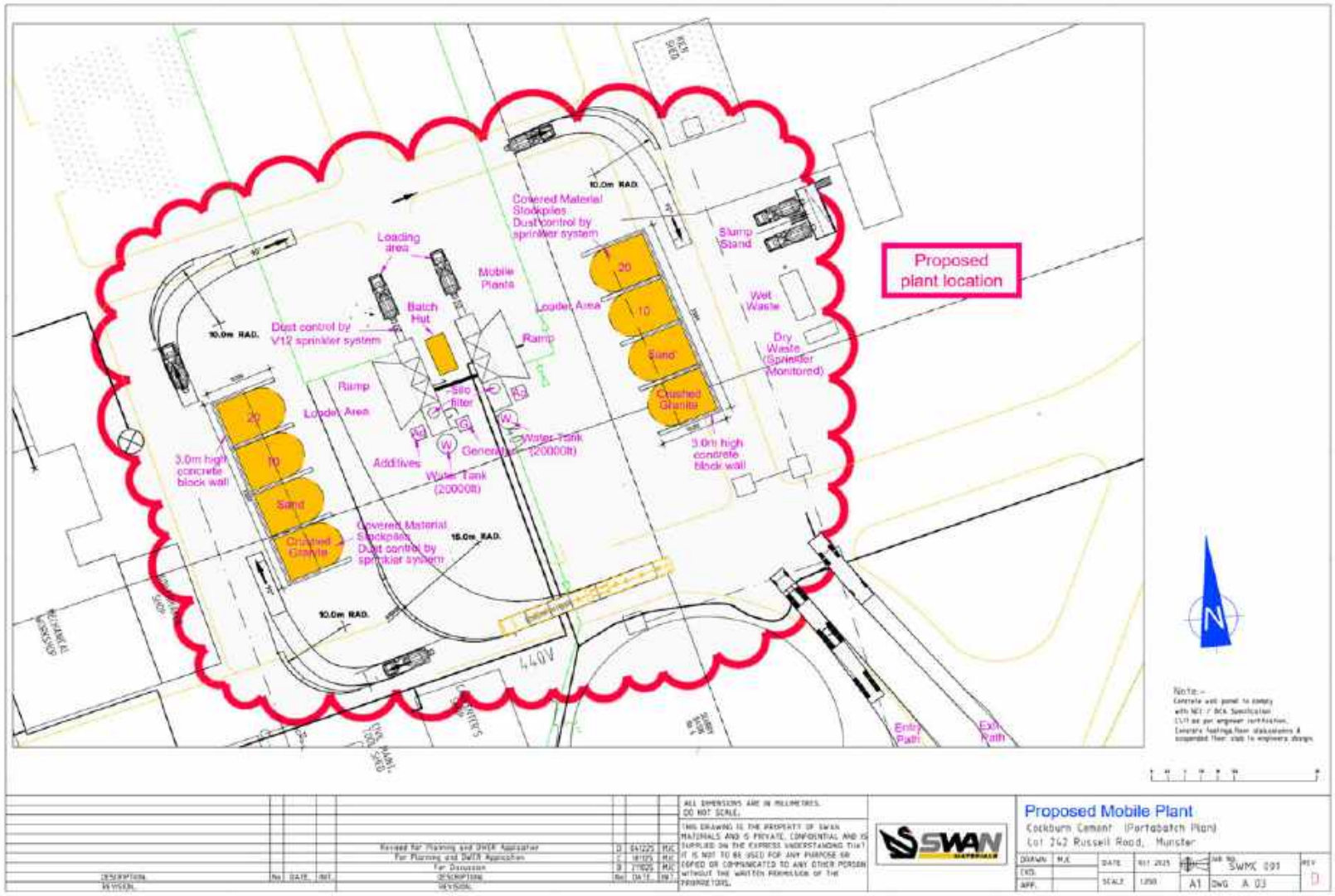


Figure 8 Conceptual Plant Layout Diagram Swan Concrete Munster

5.3 POTENTIAL IMPACTS

Potential impacts from dust generated by vehicle movements, material transfer, material processing, and storage are as follows (Table 3).

Table 3 Potential impacts from dust emissions

Amenity	Receptors adjacent to the premise could regard dust emanating from the premise to be a nuisance and impact their visual amenity if dust is deposited on their property or public infrastructure
Health	Cement dust is deemed hazardous according to Safe Work Australia criteria. It can irritate the skin, the mucous membrane of the eyes, and if inhaled, the respiratory system
Contamination	Cement and dried concrete pit waste are alkaline by nature, and if mixed with rainfall, runoff of high pH could be discharged to land groundwater or public drainage
Property damage	Cement dust is corrosive on contact with moisture and can change the colour of paint on vehicles, form pitting on glass windows, and affect electronics.
Resource efficiency	Cement is valuable, and if it escapes as dust, it results in an economic loss to the business. It is also an inefficient use of resources used in the upstream manufacturing of cement.

5.4 SUMMARY OF ASPECTS AND IMPACTS

Table 4 Site Activities, Aspects and Impacts

Activity	Aspect	Impact
Materials movement - trucks	Transporting aggregates and sand by road from quarries to the site and unloading of materials from the trucks onsite can release dust.	Receptors adjacent to the site and personnel on-site could be exposed to dust which has the potential to impact on amenity and health
Cement transport - receivals	Unloading cement into silos can release dust if the flexible hose coupling is not secured properly or silos are overfilled, or silos top filters fail.	Receptors adjacent to the site and personnel on site could be exposed to dust which has the potential to impact amenity and health. Potential for property damage on and offsite Resource efficiency is lost as cement is unused and valuable
Storage of materials	Storage of aggregates and sand and drying out pit waste can release dust to the air, particularly in windy events	Receptors adjacent to the site and personnel on-site could be exposed to dust which has the potential to impact on amenity and health.
Materials processing - conveyors	Transfer of materials by conveyer can release dust if not adequately enclosed	Receptors adjacent to the site and personnel on site could be exposed to dust, which can impact amenity and health.
Transport on site	Vehicle movement on the hardstand can mobilise dust deposited on the hardstand	Receptors adjacent to the site and personnel on site could be exposed to dust which has the potential to impact on amenity and health
Transport off site	Vehicle leaving the site can release from cementitious materials attached to tyres	Receptors offsite could be exposed to dust which has the potential to impact on amenity and health.
Windy events	Strong winds can mobilise dust deposited on the hardstand	Receptors adjacent to the site and personnel on site could be exposed to dust which has the potential to impact on amenity and health
Rainfall events	Rain can mix with dust deposited on the hardstand and enter the drainage	Stormwater can become contaminated with high pH from alkaline particles and discharge to land or interconnected water bodies. Drains can become blocked with dust and sediments.

6 DUST MANAGEMENT

6.1 ENVIRONMENTAL POLICY

Swan Concrete operates under the Swan Materials Environmental Management Plan Mobile Batch Plants Policy which includes specific and measurable commitments relevant to its operations (Appendix 1).

6.2 MANAGEMENT SYSTEMS & PROCEDURES

Swan Concrete operates under the following management systems.

- ISO 9001 Quality Management System.
- "Cintellate" Management System
- Swan Concrete Air Quality Management Standard

6.3 SITE CONTROLS

Table 5 outlines site control to reduce the potential impacts of dust emissions. Further detail is provided in the Operational Risk Assessment (Appendix 2). New or improved methods will become available, and current best practices should always be followed to ensure that control measures are effective in minimizing dust. Best practice means there is no case for unnecessary discharges or degradation of the environment, even where an environmental standard is not exceeded.

Table 5 Dust controls.

Control	Details	Location
Dust suppression during truck movement	• Tarpaulin covers applied during aggregate and sand transportation. • Qualified & Authorised drivers. • Driver Verification of Competency. • Work Instructions describing the methodology to prevent dust emissions & contact with the product. • Mobile sweeper service. • Dedicated traffic routes • 10-20 kmph plant speed limit road network.	Public Roads & on site

Control	Details	Location
Dust mitigation during operations	• Sand & aggregates not to exceed allowed outlined height. • Pumped transfer of cement using air slide under slight negative pressure. • Dust sprinklers fitted to truck load out bay. • Dust collectors are installed at all transfer points. Scheduled preventative maintenance on all equipment that handle dust generating material at the site. • Reverse pulse cleaning systems in the cement silos, differential pressure monitoring. • Stocks of spare filter bags stored at its maintenance sub contractor's premises. • Scheduled dust filter bag replacement/servicing. Specification of all dust collection equipment is available. • Trained & authorised operators. • Verification of Competency for all operators. • Fully enclosed conveyors. • Documented Inspection process. • Work Instructions & Training. • Operators trained in material handling. • Maintenance regimes / inspections.	Site
Sweepers	A sweeper truck will be used to ensure materials remain within the storage areas	On-site
Weather monitoring	Wind strength, direction, and site activities are observed daily to assess the potential for offsite dust emissions. Figure 4 is also used for forecasting	Site

6.4 MONITORING AND MAINTAINANCE SCHEDULE

Table 6 outlines the monitoring and maintenance schedule implemented onsite to ensure the effective control of dust emissions that have the potential to leave the premises.

Table 6 Maintenance and Monitoring

Item	Site location	Frequency	Responsible Personnel
Visual Dust Monitoring	All site locations	Opportunistic observation of visual dust lifts off or emissions	Site supervisor
Weather	N/A	Daily	Site Supervisor
Record Keeping	BU	Inspections & maintenance records in MYOSH	Site Supervisor Production Manager
Complaint register	N/A	Logged within 24 hours receipt	Personnel to refer all complaints to Production Manager Logged by Production Manager.
Dust collectors	Silos. Receival Bay.	Weekly Inspections Maintenance & cleaning as required	Site Supervisor. Production Manager

6.4.1 Visual Monitoring

Visual monitoring of dust emissions is the primary mechanism for dust management following an observation of dust lifts off or emission. Mitigation actions are instigated without delay at the observed source of dust emission. In the case of material loading or processing, this would include activation of sprinkler systems at plant ,ceasing the operation to allow dust to settle and only restarting operation at a low intensity, and slowly increased to ensure dust emissions are minimised.

6.4.2 Weather Monitoring

The Bureau of Meteorology (BoM) forecast will be reviewed at the start of each week to determine if there are any strong winds forecast that may impact high risk dust emission activities on site and increase the likelihood that dust will be emitted off site. This is an internal process that will not be logged. Historical wind data will also be utilised to determine the highest risk periods on an annual scale (refer Figure 4). The risk wind periods are morning easterlies and afternoon sea breezes between September and April.

6.4.3 Record Keeping

Routine checks and maintenance for control measures identified in Table 6 is scheduled and recorded on Divisional "Cintellate" software. A Complaints Register will also be maintained.

6.4.4 Complaints Register

A complaints register will be maintained to verify that operating parameters are effective. Any External complaints received regarding the Batch Plant will be referred to the Production Manager for central coordination.

Any dust complaints that may be received will be evaluated against the wind direction and wind speed data from the closest open BoM station (14km away) and compared against any onsite activity being conducted at the time of the complaint.
The complaints register will record any complaints received the meteorological conditions, site conditions at the time and will track any trends that occur regarding complainants' amenity.
The Production Manager will communicate immediately with the Regulator if reportable incidents Occur.

6.4.5 Dust Collectors

The Maintenance / Production Manager will ensure that dust collectors are inspected routinely and replaced if required to ensure that they are operating at optimal levels and their effectiveness is not compromised.
Should a dust collector not be operating at an optimal level, all operations shall cease using at the individual plant in the affected area until the issue has been rectified. This will be an internal process with a formallog not required unless a problem is identified.

6.5 MANAGEMENT ACTIONS

Table 6 outlines the management actions that will be implemented onsite as a result of the identification of a trigger breach. A minor potential dust event will be regarded as a trigger or series of triggers that are unlikely to give rise to the emission of dust over the site boundary. A major potential dust event will be regarded as a trigger or series of triggers that have the potential to result in dust transgression over the site boundary.

Table 7 Management actions

Item	Trigger	Management Action
Visual Dust Monitoring	Observation of dust lift off or dust emission	• Opportunistic observation of visual dust Lift-off or emission. All operations personnel to receive training to report any major dust emission observations to the relevant Supervisor. • The Supervisor is to take appropriate action to minimise dust emissions that. May impact the environment.
Adverse weather	Strong winds forecast during high-risk dust emitting activities (e.g. unconfined unloading, material transfer etc.)	• Maintenance / Production Manager to notify operations personnel to take preventative measures during periods of forecast strong winds. • Management may include water spray measures, and scheduling of material transfers to less windy periods can also be implemented as required. However, the site is in an internationally deemed high water-stressed area therefore, sound water management measures also need to be adhered to during spraying.
Complaint register	Dust complaint	• Review and access against wind data and onsite activities at the time of the complaint to verify the issue. If the complaint is justified, take remedial action and notify complainant of the outcome.
Dust collector	Operational less than optimal due to dust build up	• Maintenance/ Production Manager is to ensure that appropriate action (e.g. cleaning or maintenance) is undertaken to ensure the ongoing effectiveness of the dust collector.

6.5.1 Dust Monitoring

If any of the triggers outlined in Table 7 occur on a regular basis, perimeter dust monitoring during operations will be considered to ensure that there is no impact on the surrounding environment, or human health.

Site monitoring may be undertaken for PM10 using high volume samplers and results compared to 24-hour triggers, in accordance with the NEPM for Ambient Air Quality.
Should further monitoring be required for a human health impact assessment, other sampling tools may be implemented in accordance with AS/NZS 3580.1.1:2007.

6.5.2 Monitoring Review

The effectiveness of this DMP will be reviewed periodically according to the roles and responsibilities outlined in Table 8.
Any corrective actions undertaken during the year will be reviewed for effectiveness immediately after implementation and at the annual review of periodic assessment. If the annual review assessment reveals systemic ineffectiveness at any part of the premise, more regular inspections or audits shall be implemented.

6.5.3 Roles and Responsibilities

The roles and responsibilities of all site personnel are outlined in Table 8.

Table 8 Roles and Responsibilities

Roles	Responsibilities
Swan Materials Pty ltd	• Provide ongoing support and advice management and site personnel. • Assist with any licensing matters for the site. • Assist in audits as required. • Liaise with regulatory authorities as required.
Swan Concrete General Manager	• Ensure the adequate resources are provided to ensure compliance with this DMP.
Plant Manager	• Liaison with Regulatory Authorities, as required. • Assist all personnel, including managers and contractors, to remain compliant with the DMP. • Review and update DMP periodically. • Identify areas of opportunity for improvement of dust management which may lead to improved performance. • Act as the central registrar of any complaints received and ensure appropriate action is taken in the event of a complaint relating to nuisance or human health • Conduct regular audits to validate that compliance with this dust management plan is achieved. • Cease any activity that may constitute a breach to this dust management plan. • Ensure that potential environmental hazards are identified and reported. • Assist in the development of any relevant Work Instructions required for the safe operations of the Batch Plant.
Production Manager	• Assist Site Supervisor with overall review and compliance of the DMP. Lead overall compliance with the DMP. • Ensure contract documentation specifies the responsibilities of Contractors consistent with the DMP. • Ensure monitoring requirements are met. • Ensure ongoing effective communication with all site personnel, • including the development of work procedures and ensuring staff are trained in their use. • Review breach, or potential breach, of any legislation and potential environmental hazards, and act where appropriate. • Conduct inspections on a regular basis of potential dust sources and implemented control measures, more often during high-risk periods. • Ensure that potential environmental hazards are identified and reported. • Liaise with regulatory authorities as required.
Site Personnel	• Familiarise and remain compliant with the DMP • Meet general environmental duties, facilitated and supported through appropriate training, work practices, and event reporting. • Report all incidents relating to dust, including visual dust observations and infrastructure maintenance requirements. • Ensure all contractors, visitors and personnel always remain compliant with the DMP. • Any person left in charge of the premises is aware of the conditions of the Registration and always has access to a copy of the Registration.

6.6 PREMISES POLLUTION LIABILITY INSURANCE

In the event that an environmental incident ever transpired, Lot 242 Russell Road, Munster WA 60166 is insured by Liberty Specialty Markets with limits of liability set at $50m for both i) pollution conditions or indoor environmental conditions (Policy No. ADCAS22419546). and ii) transportation (Zurich Australian Insurance Limited Policy No. 52 2233925GFT) This insurance policy applies to all Swan Concrete sites and is available on request.

7 REFERENCES

- Australian Standard AS/NZS 3580.1.1:2007. Methods for the Sampling and Analysis of Ambient Air – Guide to Siting Air Monitoring Equipment. Bureau of Meteorology (BoM) 2021, Climate data online Bureau of Meteorology, viewed 22 July 2021. < http://www.bom.gov.au/climate/data/>

- Department of Environment and Conservation (DEC) 2011, A guideline for managing the impacts If dust and associated contaminants from land development sites, contaminated sites remediation and other Related activities viewed 20 July 2021, https://www.der.wa.gov.au/images/documents/yourenvironment/air/publications/Guideline_for_managing_impacts_of_dust.pdf>,

- DEE 2017, Ambient Air Quality Standards, viewed 20 July 2021, <http://www.environment.gov.au/protection/air-quality>

- Department of Environmental (DoE) 2004, viewed 20 July 2021, <https://www.der.wa.gov.au/images/documents/yourenvironment/contaminatedsites/guidelines/potcont_v3_080205.pdf>

- Department of Planning, Lands, and Heritage (DPLH) 2019, Plan WA online, viewed 5 April 2019, <https://espatial.planning.wa.gov.au/mapviewer/Index.html?viewer=planwa>

- Department of Water and Environmental Regulation (DWER) 2018, Odour guideline for prescribed premises (Draft) viewed 20 July 2021, <https://www.der.wa.gov.au/images/documents/ourwork/consultation/OdourGuideline/17-01-2018_Odour_GdL_external_consult.pdf>

- Environmental Protection Authority (EPA) 2005, Separation Distances between Industrial and Sensitive Land Uses, viewed 5 April 2019, http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/GS3-Separation-distances-270605.pdf>

- Environmental Protection Authority (EPA) 2015. Environmental Assessment Guideline: Separation distances between industrial and sensitive land uses (Draft), viewed 5 April 2019, <https://consultation.epa.wa.gov.au/policy-and-guideline-development-and-review/draft-separation-distanceseag/supporting_documents/DRAFT%20EAG%20X%20Separation%20buffers%20September%202015.pdf>

- Tillman, C. 2007. Principles of Occupational Health and Hygiene- An Introduction. Allen and Irwin Australia.

APPENDIX 1 – SWAN MATERIALS ENVIRONMENTAL POLICY

ENVIRONMENTAL POLICY

I. Introduction, Purpose and Scope

CRH is committed to ensuring that sustainability principles are embedded across all operations. With ever increasing demands on world resources and mounting pressures on the global climate, we believe it is important to focus on achieving continuous improvement in standards of environmental management and control, addressing our environmental risks and reducing potential impacts. This will ensure we play our part in protecting the environment.

We work with stakeholders including customers and the wider building materials industry to promote emissions reduction and resource efficiency. Our climate strategy, which is integrated with our business strategy, seeks to provide building solutions that reduce emissions and promote climate resilience, recognising the long-term durability and carbon benefits of concrete construction, as well as reducing our direct carbon dioxide emissions.

Our Environmental Policy demonstrates our commitment to laws, regulations and policies concerning environmental issues and forms the foundation of continual environmental improvements to be made across our Group.

Because of the diversity of our businesses, impacts can vary. However, in all cases, our aim is to optimise environmental performance, with environmental targets in place both at Group and operating companies.

II. STATEMENT OF POLICY

The CRH Environmental Policy, applied across operating companies, is to:

- Address proactively the challenges of climate change, reduce emissions and waste as well as optimise our use of energy, water, land and other resources
- Promote sustainable product and process innovation and new business opportunities
- Support and enhance biodiversity, ensuring responsible land use and biodiversity management
- Comply, with or exceed all applicable environmental legislation and continually implement and improve our environmental management systems, always striving to meet or exceed industry best practice standards, monitoring and reporting performance
- Maintain open communications and ensure that our employees and contractors are aware of and adhere to their environmental responsibilities
- Maintain positive relationships with stakeholders through engagement and consultation, always striving to be good neighbours in every community in which we operate
- Ensure compliance with requirements listed in Section VII of this Policy

III. ROLES AND RESPONSIBILITIES

Our Environmental Policy must be applied rigorously across all of our companies. There are clear lines of responsibility through operational management, the Group Chief Executive, the Safety, Environment and Social Responsibility Committee and ultimately the CRH Board.

EMPLOYEES MUST:

- Read and understand their obligations under this Policy
- Participate in relevant training programmes
- Notify their manager or local environmental manager of potential or actual violations of environmental permits, regulations or policies. Alternatively, employees can communicate their concerns without fear of retaliation via the CRH Hotline facility, a confidential, multilingual service operating 24/7

COMPANY MANAGEMENT MUST:

- Be accountable for the effective day-to-day implementation of this Policy in order to achieve compliance and excellence in environmental management across all our operating locations
- Appoint, as appropriate, environmental managers to implement best practice and engage with Group and Divisional initiatives
- Report all serious environmental incidents to the relevant senior manager as soon as possible

IV. MONITORING, ASSURANCE AND BREACH REPORTING

Managers at CRH are responsible for implementing the Environmental Policy. They appoint environmental liaison officers/managers to provide expert advice. This network of environmental liaison officers/managers is supported by regional and Group specialists and assist operational managers to achieve excellence in environmental management.

Environmental performance must be measured throughout our businesses and reviewed by senior management to ensure compliance with regulatory requirements and Key Performance Indicators (KPIs) or targets as set out.

Environmental incidents deemed to be significant must be reported to senior management, Group HSE Directors, and in certain instances, to Group Corporate Affairs, to ensure that risks are being appropriately managed.

Managers at CRH will support Group Sustainability through the annual Environmental Review data collection process to monitor the implementation of the Environmental Policy and confirm that potential environmental risks are being appropriately managed.

Compliance with this Policy will form part of the ongoing programme of Internal Audit (IA) reviews. Matters identified will be reported to the relevant stakeholders, including the Audit Committee, in accordance with the IA Charter.

Failure to comply with this Policy, either intentionally or through negligence, may result in disciplinary procedures being fully enforced, including termination of employment and/or relevant contracts.

Suspected or actual breaches of this Policy may be reported confidentially via the CRH Hotline.

V. RELEVANT CONTACT DETAILS

In the event of any questions with regards to the content, context or meaning of this document please contact:

Responsibility	Name	Email
HSE Director, CRH Europe	[redacted]	[redacted]
VP Environmental Health and Safety, CRH Americas	[redacted]	[redacted]
VP Risk Management, CRH Americas	[redacted]	[redacted]

VI. SUPPLEMENTARY DOCUMENTATION

- Guidelines for Biodiversity and Extractive Sites Restoration Management Plans
- Guidelines on Water Monitoring
- Sustainability Report

VII. VII. Requirements Checklist

Mandatory requirement	Yes	No
Comply with monitoring requirements		
Comply with assurance requirements		
Comply with breach reporting		
Report significant environmental incidents as required		
Ensure that the confidential CRH Hotline service is available and the contact number is displayed clearly and in relevant languages		
Set appropriate environmental targets		

Monitor and record appropriate environmental KPIs		
Ensure relevant locations have a documented stakeholder or community engagement plan		
Implement restoration plans for all quarries and pits		
Put in place biodiversity management plans for all locations within, containing or adjacent to protected biodiversity areas		
Develop water reporting systems in line with Global Cement and Concrete Association requirements		
Ensure there is a robust process for environmental management in place and that relevant locations have a permitted/certified environmental management system		
Ensure relevant companies have waste reduction/recycling programmes in place		
Ensure unprotected underground storage tanks (USTs) are phased out		
Ensure asbestos reviews are completed for all locations and friable asbestos is managed		
Note: Newly acquired companies must have an action plan for compliance in place within a reasonable time after final acquisition (for example 60 to 90 days)		

Mandatory requirement as detailed in applicable Roadmaps (Cement Only)	**Yes**	**No**
Meet CO2 reduction targets (compliance with plant specific "CO2 Plans")		
Meet particulates emissions reduction target		
Meet NOx emissions reduction target		
Meet SOx emissions reduction target		
Ensure that all major and minor emissions are monitored as required at clinker production locations		
Note: Newly acquired companies must have an action plan for compliance in place within a reasonable time after final acquisition (for example 60 to 90 days)		

APPENDIX 2 – RISK ASSESSMENT

Risk ID	Division	Source or Activity	Potential Emission / Discharge / Impact	Pathway / Receptor	Existing Controls	Worst Credible Consequence	Likelihood (of Worst Credible Consequence)	Controlled Risk Ranking
QU001	Concrete	Vehicle movements cause dust lift-off from hard surfaces	Dust	Amenity impact to industrial neighbours. Amenity and health impact to residential area. Health impact to workers. Localised reduction in air quality. Potential offsite deposition.	Sweeper available , generally 1x week Visually monitored Loader available to slop water on ground if needed Sprinklers on materials Speed limit slow (10kph within plant area, 20kph on shared access track), appropriately signed, and monitored for compliance Trucks wash down at slump stand after loading Water from the settling pit flows to the wedge pits, causing wet road (less dust) but depositing fine silts.	Minor	Possible	Medium
QU002	Concrete	Delivery of raw materials into outdoor storage bins generates dust	Dust	Amenity impact to industrial neighbours. Amenity and health impact to residential area. Health impact to workers. Localised reduction in air quality.	Trucks delivering materials to site are covered Constant monitoring and management of stockpiles Materials from Swan Materials are supposed to be wetted down prior to transport Sprinklers on timers, automatically turned on	Minor	Possible	Medium

QU003	Concrete	Loose surface particles on outdoor material and waste storage bays generates dust	Dust	Amenity impact to industrial neighbours. Amenity and health impact to residential area. Health impact to workers. Localised reduction in air quality.	Constant monitoring of stockpiles, maintain footprint with loader Sometimes difficult to maintain height limit. Sprinkler system (automatic) Regular sweeping (1x week or as required) Waste removed offsite as soon as it is dried	Minor	Unlikely	Medium
QU004	Concrete	Movement of cement to silos via tanker generates dust	Dust	Amenity impact to industrial neighbours. Amenity and health impact to residential area. Health impact to workers. Localised reduction in air quality. Potential offsite deposition.	Silo facilities where processed cement is transferred and stored is enclosed at all times Dust collectors installed and maintained Reverse-pulse cleaning system in cement silos Silo fill alarm Hi Level alarm. Spare dust collector bags on hand Scheduled dust collector filter bag replacement (3 months) 3-monthly test and tag, alarm checks, silo probes etc	Minor	Rare	Low

QU011	Concrete	Spills of dry mix during truck loading generates dust	Dust	Amenity impact to industrial neighbours. Amenity and health impact to residential area. Health impact to workers. Localized reduction in air quality. Potential off-site deposition.	Trucks washed down prior to leaving site (at slump stand) Loaders scrapes up dropped mix Loading area is semi-enclosed Dust extraction system in load bay (deposited back into silo)	Slight	Possible	Low
QU012	Concrete	Material movements around the site generate dust	Dust	Amenity impact to industrial neighbours. Amenity and health impact to residential area. Health impact to workers. Localised reduction in air quality. Potential off-site deposition.	Stockpiles kept damp with sprinklers Regular inspections of conveyor and removal of spillage Conveyor not covered Main hopper is covered	Slight	Possible	Low
QU013	Concrete	Waste stockpiles generate dust	Dust	Amenity impact to industrial neighbours. Amenity and health impact to residential area. Dust deposited onto roads. Localised reduction in air quality. Potential off-site deposition.	Three sides on storage area Loader maintains stockpile integrity to reduce footprint Waste stockpile near boundary, kept low against wall Waste is generally wet, allowed to mostly dry Waste is from waste water wedge pits and from recycler (by product) Dried waste carried from bottom settling area to waste stockpile up top Loaded into trucks for disposal when no longer wet, but not dry	Slight	Rare	Low

ATTACHMENT 10 – FEE CALCULATIONS

WORKS APPROVAL APPLICATION

FEE CALCULATIONS

TWO MOBILE CONCRETE BATCHING PLANT AND ASSOCIATED INFRASTRUCTURE

SWAN MATERIALS PTY LTD T/AS SWAN CONCRETE

LOT 242 Russell Road, MUNSTER WA

December 2025

Category	Description	Capacity	Capacity Range	Fee
77	Concrete batching or cement products manufacturing	306,000 tonnes	N/A	N/A

Works approval application fee calculator

Works approval fees are determined by the total cost of the works. The cost of the works are all capital costs (inclusive of GST) associated with the construction and establishment of the works proposed under the works approval application. This includes but is not limited to, for example, costs associated with earth works, hard stands, drainage, plant hire, equipment, processing plant, relocation of equipment and labour hire.

The application form for a works approval lists what the details for the cost of works and fee calculation needs to be provided as an attachment. A breakdown of the total cost of the works can be entered into the rows below and used to calculate the works approval application fee. This spreadsheet may then be used as an attachment in the works approval application.

The cost of works does not include:
- the cost of land
- costs for buildings unrelated to the prescribed premises activity or activities
- consultancy fees relating to the works.

Cost of works breakdown	
site preparation, construction and relocation of mobile concrete batching plants	[redacted]
Total cost of works	
Works approval fee calculation breakdown	
Cost of works range	
Fee unit range	
Total number of fee units	
Fee unit value (as of 1 July 2022)	
Works approval fee	[redacted]

TOTAL WORKS APPROVAL FEE

[redacted]