Boral St Peters
Concrete batching plant and quarry materials handling facility

Request for Secretary's environmental assessment requirements
Modification 11

Prepared for Boral Resources (NSW) Pty Limited
December 2017

BORAL

EMM

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Boral St Peters |Concrete batching plant and quarry materials handling facility

Prepared for Boral Resources (NSW) Pty Ltd | 21 December 2017

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Request for Secretary's environmental assessment requirements

Draft Report

Report J16208RP1 | Prepared for Boral Resources (NSW) Pty Ltd | 21 December 2017

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1 Introduction

Boral Resources (NSW) Pty Ltd (Boral) own and operate a concrete batching plant (CBP) and construction materials handling facility (the handling facility) at 25 Burrows Road South, St Peters (the site).

The site receives bulk construction materials (aggregate, sand, and cement) predominantly by rail from Boral's Peppertree and Dunmore quarries and Berrima Cement Works. These construction materials are used to make concrete at the CBP, or are temporarily stored at the handling facility for later distribution to other CBPs and asphalt plants within the Sydney metropolitan area. All concrete and construction materials are despatched from the site by truck.

The site is located within the Inner West local government area (LGA) adjacent to its eastern boundary with the Bayside LGA. The site is principally surrounded by industrial land uses which correspond with the site's and surrounding properties zoning as IN1 General Industrial under the *Marrickville Local Environmental Plan 2011* (Marrickville LEP).

The south eastern boundary of the site adjoins the Alexandra Canal. Sydney Airport is located about 300 metres (m) to the south of the site. The nearest private residences are located about 600 m to the north-west of the site on the opposite side of the Princes Highway.

The site's location, its regional setting, and local context can be seen in Figures 1.1 and 1.2 respectively.

On 6 September 1996, the then NSW Minister for Urban Affairs and Planning granted development consent to Boral under the provisions of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) for the construction and operation of the CBP and the handling facility at the site. The development consent also permitted Boral to construct and operate an asphalt plant. This plant was constructed and operated, but was subsequently decommissioned and demolished in 2002.

Since the development consent was granted, ten modifications to the consent have been approved. The last modification, Modification 10, was largely an administrative modification of the development consent under section 75W of the EP&A Act to simplify it (ie remove complexity) and remove irrelevant conditions, and increase production at the CBP by 10%.

Housing and infrastructure construction activities are continuing to drive record demands in the Sydney construction materials market. A healthy residential housing market along with a pipeline of fully funded infrastructure works, including North West Rail Link, WestConnex, NorthConnex, the CBD and South East Light Rail and Sydney Metro, is driving the demand for aggregate and concrete products.

As such, Boral has undertaken a review into all existing facilities within the Sydney area to identify where site improvements can be made to increase efficiency and production.

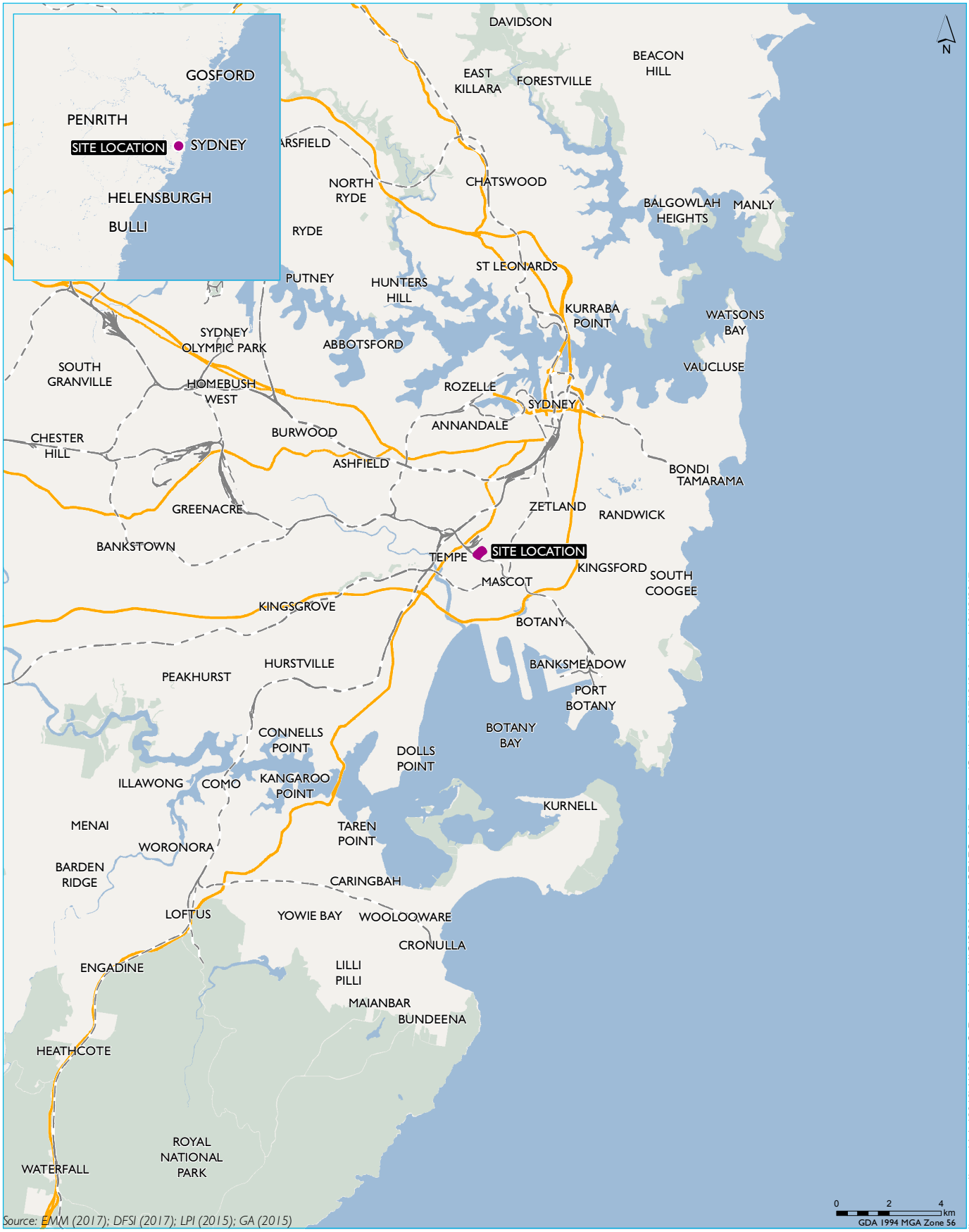
The site is located in close proximity to Sydney's CBD, with good linkages to major roadways heading south and north. Its location within an existing industrial zone, as well as the ability to rail construction materials into the site, make it an ideal site for increasing production of concrete and the throughput of construction materials to meet the demand from the housing market and infrastructure works.

An application under section 75W of the EP&A Act is proposed to increase production at the CBP and increase the throughput of the handling facility (the proposed modification). The proposed modification includes:

- increasing production at the CBP from 280,000 cubic metres (m^3) to 750,000 m^3 per annum;
- increasing the throughput of the handling facility from 759,000 tonnes per annum (tpa) to 1 Million tonnes per annum (Mtpa); and
- associated upgrades to the CBP and handling facility to facilitate these increases in production and throughput.

The purpose of this document is to seek the Secretary's environmental assessment requirements (SEARs) from the Secretary of the NSW Department of Planning and Environment (DP&E) for an environmental assessment (EA) to accompany the application to modify the development consent. This report provides:

- details on the current operations at the site;
- an overview of the scope of the proposed modification;
- an overview of the statutory approval pathway for the proposed modification;
- Boral's proposed approach to stakeholder engagement; and
- details on the proposed approach for addressing relevant environmental issues that will be considered in the EA that will accompany the proposed modification.



Source: EMM (2017); DFSI (2017); LPI (2015); GA (2015)

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KEY

- Site location
- Highway
- Road
- Railway
- Watercourse
- Waterbody
- NPWS reserve

Regional setting

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Figure 1.1

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Source: EMM (2017); DFSI (2017); LPI (2015); GA (2015)

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KEY

- Site location
- Local government area
- Railway
- Highway
- Road
- Watercourse

Site location

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Figure 1.2

EMM

2 Existing site operations

2.1 General description and site layout

The site has two existing uses; a CBP and a construction materials handling facility. Both uses predominantly receive bulk construction materials (aggregate, sand and cement) from Boral's Peppertree and Dunmore quarries, and Berrima Cement Works. The majority of aggregate and sand material is received by rail. Some bulk construction materials as well as cement, fly ash and special admixtures used in the CBP are delivered to the site by road.

All materials received are either used to make concrete at the CBP, or stored at the handling facility for subsequent distribution to other CBPs and asphalt plants within the Sydney metropolitan area. Concrete from the CBP is despatched by road in concrete agitators. All construction materials are despatched from the site by road in trucks.

The site has two driveways to Burrows Road South; the main driveway (Driveway 1) located in the middle of the site's boundary with Burrows Road South, and a second driveway (Driveway 2) located on the north-western boundary. The original layout of the site has been modified a number of times since the original consent to improve overall operation and efficiency and to account for the demolition of the asphalt plant. The current layout of the site is illustrated in Figure 2.1 and Appendix A.

The following sections describe the CBP, handling facility, access and traffic circulation, rail infrastructure, and water management in further detail. An operational flow diagram for the CBP and handling facility is illustrated in Figure 2.2.

2.2 Concrete batching plant

The CBP is located in the south western section of the site. The location and general arrangement of the CBP is illustrated in Figure 2.1. Key components include:

- rail unloading area, for sand and aggregate received by rail;
- elevated aggregate and sand bins;
- batching plant and elevated cement/fly ash silos;
- slump stands, where water added is to concrete agitators;
- concrete washout bays;
- truck wash bays;
- concrete returns bays; and
- office, amenities and car park.

Plates 2.1 to 2.6 show operations at the CBP.

Source: EMM (2017); DFSI (2017); LPI (2015); GA (2015)

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KEY

- Site location
- Direction of traffic circulation
- Concrete batching plant feature
- Handling facility feature

Site location

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Figure 2.1

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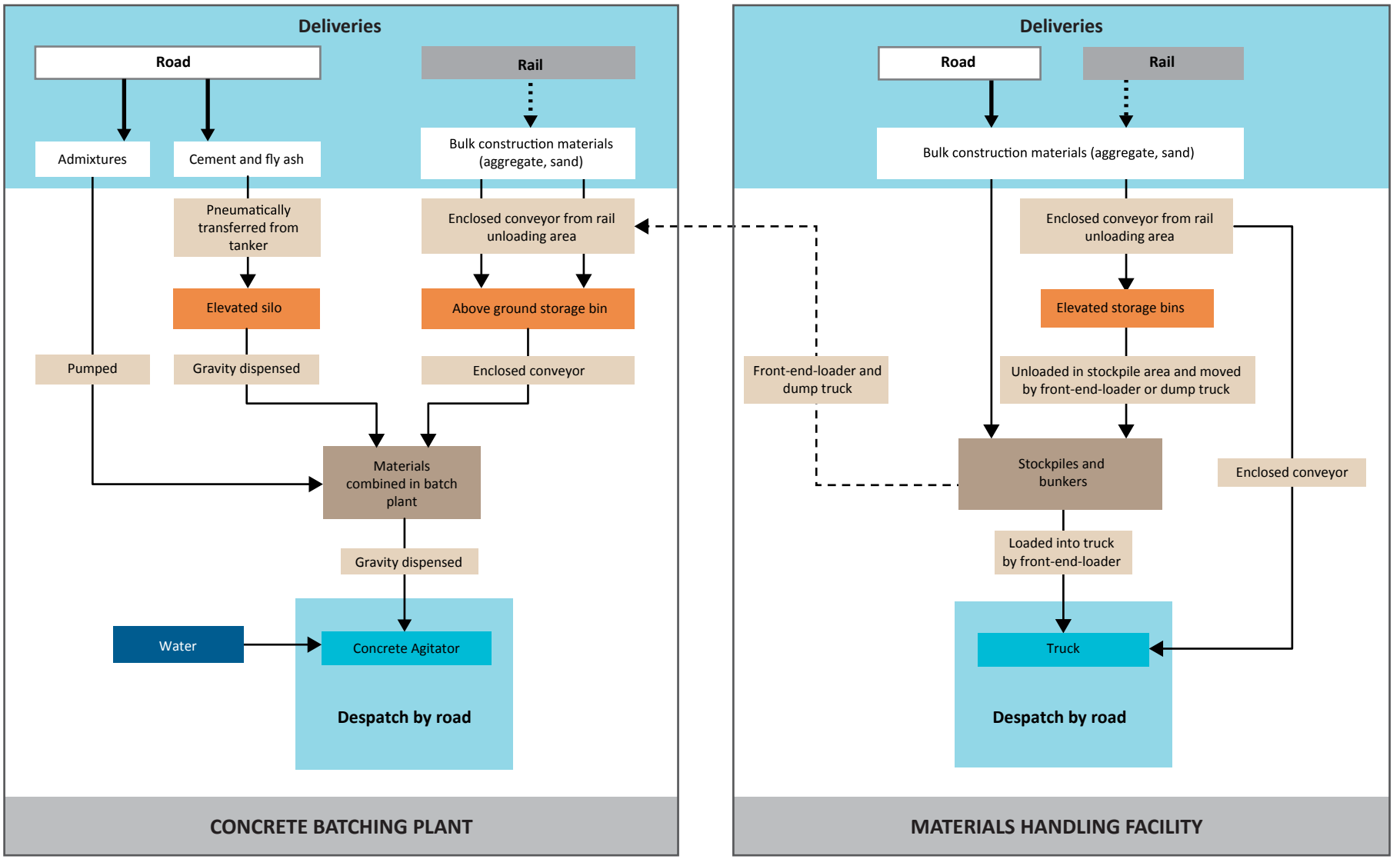

Operational flow diagram

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Figure 2.2

2.2.1 Production and operation

The operation of the CBP involves the dry and wet batching of aggregates, sand, cement, fly ash, and admixtures with water. The CBP currently produces approximately 280,000 m^3 per annum in accordance with Modification 10.

Aggregates, sand, and cement are received at the site (primarily by rail) and transferred via conveyor to elevated storage bins. From the storage bins, these materials are dispensed via conveyor to the batching plant. Fly ash and admixtures are received via truck and stored in silos above the batching plant. These are gravity dispensed to the batching plant below.

The CBP gravity dispenses the dry batched product into concrete agitators (also known as transit mixers) in the loading alley beneath the batching plant. The site has two loading alleys for dry batching into the concrete agitators (see Plate 2.4). Admixtures are automatically dispensed in measured quantities into the concrete agitators.

Once the concrete agitators are filled with dry product, they proceed to one of two dual slump stands where water is added to concrete agitators prior to dispatch (see Plate 2.5). The concrete agitators blend the dry batched product and water, and the end product (concrete) is then transported by road to customers.

Empty concrete agitators returning to the CBP are washed out in a series of washout bays (see Plate 3.6). Once full, concrete in the washout bays is dried before being sent by truck for recycling. The CBP also recycles unused concrete (known as concrete returns) from the concrete agitators. Unused concrete is dried in a drying yard located adjacent to the washout bays and then transported by truck for recycling.

2.2.2 Materials handling and storage

Aggregates and sand are delivered to the CBP mostly by rail, where they are bottom-dumped from rail wagons into pits below ground level at the rail unloading area. They are transferred from the pits at the unloading area by conveyor to elevated, fully enclosed storage bins, located in the south-western corner of the site (see Figure 2.1and Plate2.2). Aggregates and sand are also transferred to the CBP from the handling facility.

Table 2.2 presents the volume of bulk construction material inputs to the CBP.

Table 2.1 Bulk construction materials – CBP (for an annual production of 280,000 m^3)

Material	Quantity
Aggregate	289,000 t
Sand	224,000 t
Cement/fly ash	130,000 t
Admixtures	441,000 litres (L)

Cement and fly ash are transported to the site by either rail, or road in tankers and transferred pneumatically (ie by pressurised hose) to elevated silos located above the batching plant. During the batching process, cement and fly ash are conveyed inside sealed airslides from the silos to a sealed weighing hopper, from where they are discharged into a concrete agitator in the loading alley.

Admixtures required by the CBP are pumped directly from the delivery tanker to the storage tanks adjacent to the batching plant, and automatically dispensed in measured quantities into the concrete agitators. Approximately 441,000 L of admixture is required per annum t produce 280,000 m^3 of concrete. Water is added directly to the concrete agitators by the CBP and final adjustment is achieved via water addition at the slump stand. Approximately 42,000 kilolitres (kL) per annum is required to produce 280,000 m^3 of concrete.

2.2.3 CBP office, amenities and car park

The CBP's office and car park are located in the south-eastern portion of the site. The car park is located in the southern most extent of the site adjacent to the Alexandra Canal, and has a sealed pavement with line markings and accommodates 40 vehicles. The office is located adjacent to the rail unloading area.

Plate 2.1 A train on one of the sidings moving through train unloading area unloading aggregates and sand

Plate 2.2 Elevated storage bins which receive aggregate and sand via conveyor

Plate 2.3 Elevated cement and fly ash silos above the batching plant

Plate 2.4 **Alleys underneath batching plant where batched material is gravity dispensed into concrete agitators**

Plate 2.5 **Concrete agitators at the slump stands after existing the batching plant (neighbouring site visible to the right of photograph)**

Plate 2.6 Concrete washout bays

2.2.4 Employees

The CBP employees 39 people. This does not include agitator drivers.

2.3 Handling facility

The handling facility is located in the centre and north-eastern section of the site. The location and general arrangement of the handling facility is illustrated in Figure 2.1. Key components include:

- rail unloading area, for sand and aggregate material received by rail;
- elevated aggregate and sand storage bins;
- aggregate and sand stockpiles and bunkers;
- weighbridge; and
- office, amenities and car park.

2.3.1 Production and operation

The handling facility receives and temporarily stores aggregates and sand from Boral's Peppertree and Dunmore quarries before despatching it by truck to other CBPs and asphalt plants within the Sydney metropolitan area. Some aggregates and sand are also transferred for use in the CBP onsite. The majority of aggregates and sand are received by rail. Some are received by road.

Volumes of bulk construction materials received at the handling facility are presented in Table 2.3. The split between rail and road transport modes is approximate and varies from year to year. However, Boral uses rail freight for the delivery of bulk construction materials where ever practicable.

Table 2.2 Bulk construction material throughput – aggregates and sand (tpa)

Transport mode to site	Aggregates	Sand	Total
Rail	320,000	327,000	647,000
Road	15,000	97,000	112,000
Total			**759,000**

Aggregates and sand received by rail are transferred by conveyor from the train unloading area to elevated storage bins (refer to Section 2.6). From here, they are either loaded directly into trucks via conveyor for despatch offsite, or transferred to storage bunkers and stockpiles by a front end loader and/or dump truck. Aggregates and sand received by road are unloaded directly into the stockpile area and moved by front-end-loader to storage bunkers and stockpiles.

The existing storage bunkers and stockpiles provide a total stockpile capacity of around 23,000 t. The design of the storage bunkers comprise concrete retaining walls against which material is stacked. The retaining walls have a shade cloth fence mounted on top to capture dust emissions. Storage bunkers and stockpiles are fitted with a sprinkler system for additional dust suppression.

Materials stored in the stockpiles and bunkers are reclaimed by a front-end loader for loading into trucks and transport offsite. A portion of the stockpiled material is transferred to the CBP for use as required. Plates 2.7 and 2.8 show elevated storage bins, stockpiles and bunkers at the handling facility.

Plate 2.7 The handling facility's storage bins and storage bunkers

Plate 2.8 The handling facility's stockpile area

2.3.2 Weighbridge

The weighbridge is located near Driveway 1. All trucks dispatched from the handling facility at the site are weighed at the weighbridge prior to exiting.

2.3.3 Office, amenities and car park

The handling facility's office and car park are located adjacent to Burrows Road South. The car park has a sealed pavement with line markings and accommodates 23 vehicles.

2.3.4 Employees

The handling facility employees 25 people. This does not include truck drivers.

2.4 Site access and traffic circulation

The site is located at the southern end of Burrows Road South. Access is via Burrows Road South which intersects with Canal Road at right angles to the north-east. The site has two driveways to Burrows Road South. Driveway 1 (or Gate 1) (see Plate 2.9) is the site's primary driveway, located in the middle of the site's boundary with Burrows Road South, and provides two-way access. Vehicles accessing both the CBP and handling facility enter the site using this driveway. Vehicles accessing the handling facility also exit via this driveway. Driveway 2 (or Gate 2) (see Plate 2.10) is located on Burrows Road South and is exit only. Trucks from the CBP exit via this driveway.

Internal traffic circulation is generally two-way along the south-eastern side of the site and one way on the north-western side of the site. Figure 2.1 illustrates traffic circulation on site.

Plate 2.9 Driveway 1 (Gate 1) looking into the site from Burrows Road South

Plate 2.10 Driveway 2 (Gate 2) looking into the site from Burrows Road South

2.5 Rail infrastructure

The rail infrastructure at the site connects to the Botany Goods Line. Boral uses rail freight for the delivery of bulk construction materials where ever practicable. The rail siding is three roads wide which run along the south-eastern side of the site (Figure 2.1). Trains are parked and shunted along the rail sidings, which have the capacity to accommodate trains with up to 34 wagons.

There are two train unloading areas; one for the CBP and one for the handling facility (see Plate 2.11 and Figure 2.1). Sand and aggregates are unloaded by bottom dump to underground bins, and are transferred via conveyor to the elevated storage bins (Plate 2.2 shows the CBP elevated storage bins and Plate 2.7 shows the handling facility's elevated storage bins). Cement/flyash that is received by rail is pneumatically transferred via a pipeline to the elevated silos above the batching plant.

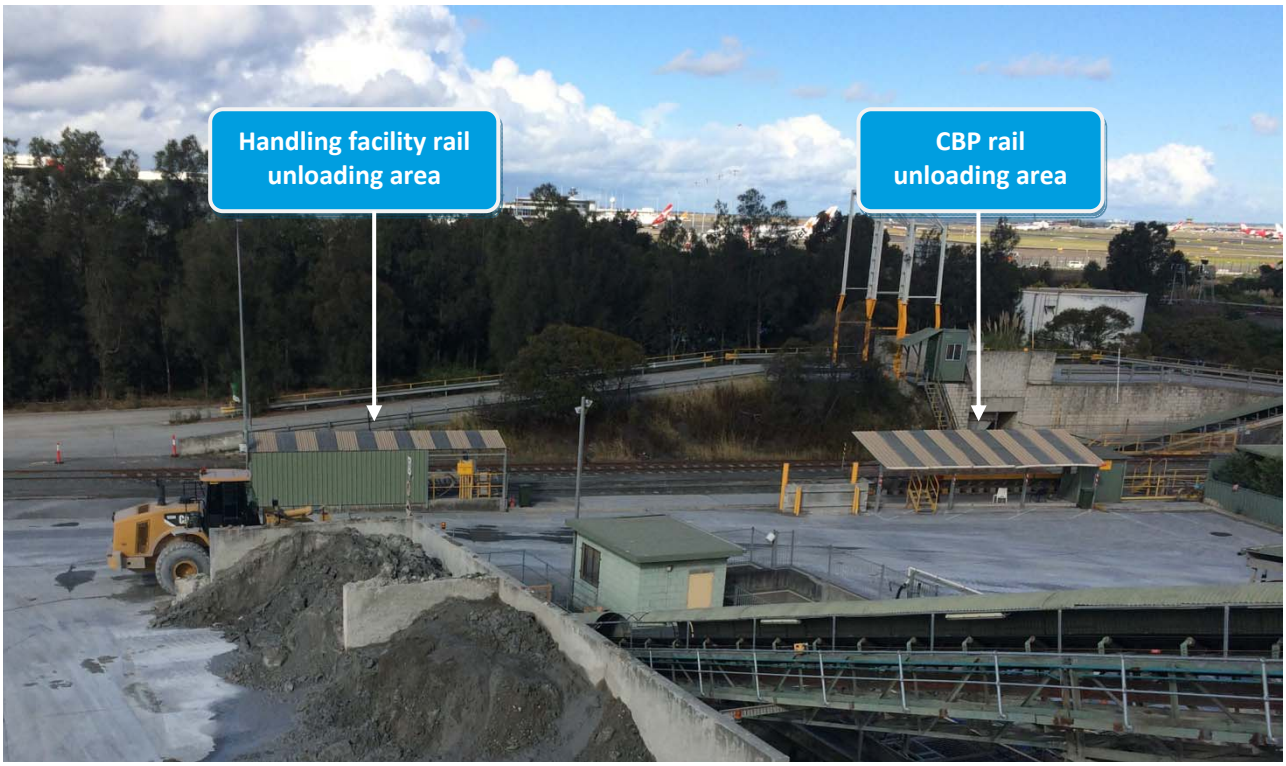


Plate 2.11 Rail unloading areas

2.6 Water management system

Surface water runoff on the site is largely captured and contained onsite. During storm events or during prolonged rain periods, water is discharged offsite.

At the CBP, drainage is via grid-covered drains sloping to the recycled water pits located adjacent to the concrete washout bays. When the recycled water pits fill, rainwater is diverted and flows into the first flush collection pit. When the first flush collection pit is full, rainwater goes directly to the stormwater drain.

Water is recycled and reused onsite for concrete production, dust suppression, cleaning of the concrete agitators, the slump stands, and washout pits. Potable water is also used when required. Recycled water from the recycled water pit is dispensed in measured quantities into the concrete agitator to be mixed with the dry materials. The plant is a net consumer of water. All excess water accumulated during the concrete batching process is recycled to minimise consumption and prevent run-off to the canal.

During high rain events (ie storms or sustained periods of rain), water from the site is discharged into the Alexandra Canal. To ensure that discharges during these events do not pollute the canal, the water management system for the CBP contains a first flush system.

3 The proposed modification

3.1 General

Boral proposes to upgrade and increase annual production at the CBP and throughput at the handling facility. Conceptually, this will require upgrades and additions to the CBP and handling facility as described and outlined in Table 3.1 below.

Table 3.1 The proposed modification

	Existing	Proposed
Hours of operation	24 hours, 7 days a week	No change
CBP		
Annual production volume	280,000 m^3	750,000 m^3
Number of employees	39	68
Number of storage bins (aggregates and sand)	14	28
Number of storage silos (cement and fly ash)	6	12
Number of load bays	2	4
Number of slump stands	4	9
Average daily truck deliveries		
- Agitators	255	638
- Cement tankers	9	23
Handling facility		
Annual throughput	759,000 tpa	1 Million tonnes per annum (Mtpa)
Number of employees	25	25
Average daily truck deliveries	70	92

Conceptual plans of the proposed modification are contained in Appendix B.

3.2 Concrete batching plant

As per Table 3.1, it is proposed to increase production at the CBP to 750,000 m^3. To facilitate this production increase the CBP will require upgrades, including the provision of 14 additional aggregate and sand storage bins, six additional cement and fly ash silos, two additional load bays and five additional slump stands.

Aggregates and sand for the production of concrete will continue to be delivered predominantly by rail.

The average number of daily truck movements associated with the CBP will increase as a result of the proposed modification. Average daily agitator deliveries would increase from about 255 to 638 deliveries. Average daily cement tanker deliveries would increase from 9 to 23 deliveries.

Employees numbers at the CBP will increase from 39 to 68. As such, the proposed modification will require the provision of additional parking spaces for employees. This will most likely require a reconfiguration of, and extension to, the existing parking area for the CBP and the provision of additional parking spaces in the south eastern corner of the site. In total 19 additional parking spaces will be provided to service the CBP.

3.3 Handling facility

As per Table 3.1, it is proposed to increase the throughput of the handling facility from 759,000 tpa to 1 Mtpa. To facilitate this increase the handling facility will be upgraded. The existing storage bunkers and stockpile area will be reconfigured, including the provision of new large aggregate storage bunkers in the northern part of the handling facility. These bunkers would be supplied by a new overhead conveyor system linked to a new dump station for the handling facility.

The handling facility will also be provided with a new aggregate reclaiming conveyor and truck dump station that will provide aggregates to the CBP when required.

Aggregates and sand for the handling facility will continue to be delivered predominantly by rail.

The average number of daily truck movements associated with the handling facility will increase as a result of the proposed modification. Average daily truck deliveries would increase from about 70 to 108 deliveries. It is anticipated that most material will be used by the onsite CBP, however there may be instances where truck volumes increase when the plant is operating at lower than expected volumes.

There will be no increase in employees numbers at the handling facility as a result of the proposal.

3.4 Other matters

In addition to the changes to the CBP and the handling facility, Boral is also proposing to upgrade the site's water management system and install a second weighbridge.

3.5 Construction

Construction of the upgrades to the CBP and handling facility is likely to take 4 to 6 months and will occur from 7.00 am to 6.00 pm Monday to Friday and 8.00am to 1.00 pm Saturdays.

4 Statutory approval pathways

4.1 General

This chapter describes the approval process under the EP&A Act for both the proposed modification. An overview of the potential approval requirements under the NSW *Protection of the Environment Operations Act 1997* (POEO Act) and Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is also provided.

4.2 NSW Environmental Planning and Assessment Act 1979

The site currently operates under Development Consent No. DA 14/96 which was granted by the then NSW Minister for Urban Affairs and Planning on 6 September 1996. The development consent enables the construction and operation of the CBP, an asphalt plant and the handling facility. The asphalt plant has been decommissioned and demolished. The Minister was the consent authority pursuant to *State Environmental Planning Policy No 34—Major Employment-Generating Industrial Development*(SEPP 34) which deemed that the site and its operations were significant to the State. SEPP 34 has now been repealed.

Since the development consent was granted, nine modifications to the consent have been approved. In most cases, the modifications have related to site layout changes, as follows:

- Modification 1 - approved 12 May 1997 -altered the approved site layout to include three rail sidings;
- Modification 2 - approved 8 December 1998 -altered the approved site layout of the asphalt plant and timing to complete the rail siding;
- Modification 3 - approved 25 June 1999 -installed liquefied butane gas tank to fuel asphalt dryer and bitumen heaters at asphalt plant;
- Modification 4 - approved 7 April 2000 -altered layout of the handling facility;
- Modification 5 - approved 23 August 2001 -altered layout of weighbridge, office and storage bunkers;
- Modification 6 - approved 16 May 2003 -altered site layout to reflect decommissioning of the asphalt plant and subsequent changes to the handling facility which were never undertaken by Boral;
- Modification 7 - approved 11 February 2004 -altered site layout to improve materials handling activities on the site;
- Modification 8 - approved 3 December 2012 -altered rail siding to accommodate the full length of 28 wagon trains;
- Modification 9 - approved 4 July 2013 -altered the site layout to relocate the handling facility's site office and car park, reconfigured aggregate and sand storage bunkers, relocated the weighbridge and wheel wash and improved traffic flow within the site; and

- Modification 10 - approved 1 November 2016 - administrative modification to simplify development consent (ie remove complexity), remove irrelevant conditions and increase production a the CBP from 254,200 m^3 to 280,000 m^3 per annum,

The proposed modification to the development consent can be considered under the repealed Part 3A of the EP&A Act. As part of the repeal by the NSW *Environmental Planning and Assessment Amendment (Part 3A Repeal) Act 2011* (Part 3A Repeal Act), transitional provisions were introduced (Schedule 6A of the EP&A Act) enabling 'transitional Part 3A projects' to continue to be subject to Part 3A of the EP&A Act (as in force immediately before the repeal and as modified by the Part 3A Repeal Act).

Specifically, the proposed modification can be considered under section 75W of the EP&A Act which allows a proponent to request that the NSW Minister for Planning modify an approval for a project. Section 75W of the EP&A Act states:

> (1) In this section:
>
> **Minister's approval** means an approval to carry out a project under this Part, and includes an approval of a concept plan.
>
> **Modification of approval** means changing the terms of a Minister's approval, including:
>
> (a) revoking or varying a condition of the approval or imposing an additional condition of the approval, and
>
> (b) changing the terms of any determination made by the Minister under Division 3 in connection with the approval.
>
> (2) The proponent may request the Minister to modify the Minister's approval for a project. The Minister's approval for a modification is not required if the project as modified will be consistent with the existing approval under this Part.
>
> (3) The request for the Minister's approval is to be lodged with the Director- General. The Director-General may notify the proponent of environmental assessment requirements with respect to the proposed modification that the proponent must comply with before the matter will be considered by the Minister.
>
> (4) The Minister may modify the approval (with or without conditions) or disapprove of the modification.

While the development consent for the site was a consent issued under Part 4 of the EP&A Act under the provisions of SEPP 34, transitional provisions within the NSW *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) allow for a consent to be modified under section 75W of the EP&A Act as if the consent were an approval under Part 3A.

Clause 8J(8) of the EP&A Regulation states:

> For the purposes only of modification, the following development consents are taken to be approvals under Part 3A of the Act and section 75W of the Act applies to any modification of such a consent:
>
> (a) a development consent granted by the Minister under section 100A or 101 of the Act,
>
> (b) a development consent granted by the Minister under *State Environmental Planning Policy No 34—Major Employment-Generating Industrial Development*,

(c) a development consent granted by the Minister under Part 4 of the Act (relating to State significant development) before 1 August 2005 or under clause 89 of Schedule 6 to the Act,

(d) a development consent granted by the Land and Environment Court, if the original consent authority was the Minister and the consent was of a kind referred to in paragraph (c).

The development consent, if so modified, does not become an approval under Part 3A of the Act.

The development consent for the site was issued by the then NSW Minister for Urban Affairs and Planning under the provisions of SEPP 34 on 6 September 1996. Therefore, in accordance with clause 8J(8) of the EP&A Regulation, the proposed modification to the development consent can be considered under section 75W of the Act.

The NSW Minister for Planning is the consent authority for modifications under section 75W of the EP&A Act. However, pursuant to section 23 of the Act, the Minister may delegate the consent authority function to a range of public officers or authorities.

When accepting an application for a modification under section 75W of the EP&A Act, the NSW Minister for Planning has to be satisfied that the proposal is a modification of the original proposal, rather than being a new project in its own right. In this regard it is noted that:

- the primary purpose of the proposed modification is to upgrade the CBP to facilitate an increase in production;
- the primary function and purpose of the operations on the site would not change as a result of the proposed modification(ie CBP and handling facility); and
- any potential environmental impacts would likely be minor compared to those impacts of the approved operations.

Therefore, it is considered that the proposed modification is within the scope of section 75W of the EP&A Act.

An application for a modification under section 75W must be accompanied by an EA. Before preparing an EA, an applicant must request the SEARs which specify what must be addressed in an EA.

Before SEARs are issued, DP&E may consult with relevant public authorities and Inner West Council to obtain input into the requirements.

The purpose of this report is to formally request SEARs from DP&E for the proposed modification.

Once finalised, the EA maybe publicly exhibited (based on the discretion of officers from DP&E). If the EA is exhibited, any person can make a written submission about the proposal (including objecting to it). DP&E may require Boral to provide a written response to any issues raised in submissions.

4.3 NSW Protection of the Environment Operations Act 1997

The POEO Act aims to protect restore and enhance the quality of the environment, having regard for the need to maintain ecologically sustainable development. This is achieved through installing mechanisms to reduce risks to human health and prevent the degradation of the environment by regulating pollution to the land, air and waters.

An environment protection licence (EPL) is required to be obtained and held by entities that undertake activities listed under Schedule 1 of the POEO Act.

The site is not required to hold or obtain an EPL, as CBPs and handling facilities are not listed under Schedule 1 of the POEO Act.

4.4 Commonwealth Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act aims to protect matters deemed to be matters of national environmental significance (MNES) including:

- world heritage properties;
- places listed on the National Heritage Register;
- Ramsar wetlands of international significance listed under the Ramsar Convention;
- threatened flora and fauna species and ecological communities;
- migratory species listed under international agreements;
- Commonwealth marine areas;
- the Great Barrier Reef Marine Park;
- nuclear actions (including uranium mining); and
- a water resource, in relation to coal seam gas development and large coal mining development.

If an action (or project) will, or is likely to, have a significant impact on any MNES, it is deemed to be a controlled action and requires approval from the Commonwealth Environment Minister or the Minister's delegate. To determine whether a proposed action will or is likely to be a controlled action, an action may be referred to Commonwealth Department of the Environment and Energy (DoEE).

The proposed modification will not have an impact on MNES and therefore a referral to DoEE is not warranted or required.

5 Stakeholder engagement

Boral recognises that engagement and consultation with stakeholders is integral to the operation of the site and determination of the proposed modification. Accordingly, stakeholder engagement will form a component of the approval process.

Engagement on the proposed modification has already been undertaken with a number of government agencies, including DP&E, the NSW Environment Protection Authority (EPA), NSW Roads and Maritime Service (RMS), NSW Office of Environment and Heritage (OEH),and the Inner West Council.

Stakeholder engagement will continue to be undertaken throughout the preparation of the EA.

6 Environmental considerations

6.1 Introduction

A review of the environmental matters relevant to the proposed modification has been undertaken to identify issues and assessment approach for the EA. The environmental matters and proposed assessment approach are described in the following sections.

6.2 Noise

The site is located within an industrial area with noise-generating industries nearby, including Sydney International Airport. The closest residential properties are located approximately 600 m to the north-west of the site.

A noise assessment was undertaken as a part of the EA that accompanied Modification 10 (ie assessed increase in concrete production from 254,200 m^3 per annum to 280,000 m^3 per annum). It was prepared in accordance with the methodology outlined in the EPA's *Industrial Noise Policy* (INP) and associated Application Notes for the assessment of noise from existing industrial premises.

A noise model was developed to compare noise levels from the approved and proposed operations. The model adopted sound power levels of key acoustically significant plant and equipment derived from a database of similar equipment. The noise assessment found that operating noise from the site during both existing and proposed operations satisfies relevant project specific noise levels (PSNLs) for day, evening and night periods at all assessment locations. The proposed operations were predicted to result in an increase no greater than 1 dB compared to those from the existing operations.

The highest predicted external maximum noise level from the site was 51 dBL_{Amax}. This predicted maximum level is below the noise levels likely to cause sleep disturbance affects. Hence, it was predicted that night-time operations from the project will not cause sleep disturbance at any residential assessment locations.

Traffic generated by Modification 10 was not expected to generate any noticeable increase in road traffic noise levels at the nearest residential locations. This increase in traffic volume would lead to a negligible increase in road traffic noise.

The noise assessment for Modification 10 concluded that it was is predicted to have a negligible impact on the existing ambient acoustic environment and was not predicted to increase industrial noise levels above the relevant amenity criteria.

A separate noise assessment will be undertaken as part of the EA to support the proposed modification to predict noise impacts associated with the proposed increase in production at the CBP to 750,000 m3. A noise assessment will be undertaken in accordance with the EPA's newly introduced *Noise Policy for Industry* (NPI). The scope of the assessment would include:

- characterisation of background noise levels;
- identification of sensitive receptors (ie residential properties);
- development of a predictive noise model;

- assessment of the noise impacts associated with construction and operational phases of the proposed modification; and

- consideration of road traffic noise effects.

The assessment would be undertaken in consultation with the EPA to ensure that noise matters are adequately assessed.

The noise assessment would be documented in a report which will be appended to the EA.

6.3 Air quality

There are no dust limits contained within the development consent for the site. However, a condition in the consent requires Boral to maintain the site in a condition which minimises the emission of dust. Boral actively manages the site to minimise dust, including the application of engineering controls (covered conveyors and storage bins, dust extraction systems in the CBP, closure of the alleys when loading concrete agitators), use of water sprays in the handling facility, use of a water cart for hard surfaces and regular use of a street sweeper. In this regard, Boral manages the site to comply with the development consent.

An air quality assessment was undertaken as a part of the EA that accompanied Modification 10 (ie assessed increase in concrete production from 254,200 m^3 per annum to 280,000 m^3 per annum). It was prepared in accordance with the EPA's *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (DEC 2005).

Emissions of total suspended particulates (TSP), particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) and particulate matter with an aerodynamic diameter of 2.5 microns or less($PM_{2.5}$) were estimated for current and future proposed operations associated with the site. Atmospheric dispersion modelling predictions of calculated air pollution emissions were undertaken using the AERMOD dispersion model.

The results of the dispersion modelling conducted indicated that the proposed modification was unlikely to result in exceedances of the applicable assessment criteria for TSP, $PM_{10}$and $PM_{2.5}$.Accounting for the neighbouring Boral recycling facility and adopted ambient background concentrations, all other pollutants and averaging periods were below the applicable assessment criterion at all neighbouring receptors for both current and future operations.

However, predicted dust deposition levels, an indicator of nuisance impact, were above the assessment criteria for both current and future operations at industrial locations near the site. Dust deposition levels at all residential locations were predicted to be within the EPA assessment criteria.

Analysis of model predictions for dust deposition indicated that the key influencing source of emissions at the site is the generation of dust by the movement of trucks across paved surfaces (eg roads and the handling facility). Existing dust controls associated with the reduction of paved surface silt loading will be reviewed and where possible improved, including undertaking more regular sweeping and dust suppression through application of water sprays. Boral will also review the location of its existing dust deposition monitors and establish an additional monitor offsite in the vicinity of neighbouring industrial receptors.

An air quality assessment will be undertaken to review the potential air quality (dust) impacts associated with the proposed modification in accordance with the EPA's *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (DEC 2005).

The scope of the assessment will include:

- characterisation of background air quality, including dust deposition TSP, PM_{10} and $PM_{2.5}$;
- identification of sensitive receptors (ie residential properties) consistent with the noise assessment;
- development of a predictive air quality model;
- assessment of the air quality impacts associated with the construction and operational phases of the proposed modification;
- presentation of the results of the modelling showing location of sensitive receptors;
- comparison of the predicted dust deposition and suspended particulates levels against relevant criteria; and
- if required, development of measures to avoid, reduce and mitigate potential impacts.

The scope of the air quality assessment would also include consideration of management and mitigation measures to address increases in depositional dust identified as a result of the air quality assessment for Modification 10 (ie increased application of water and sweeping). It will also include an assessment of greenhouse gas emissions.

The assessment would be undertaken in consultation with the EPA to ensure that air quality matters are adequately assessed.

The air quality assessment would be documented in a report which will be appended to the EA.

6.4 Traffic

A traffic assessment was undertaken as a part of the EA that accompanied Modification 10 (ie assessed increase in concrete production from 254,200 m^3 per annum to 280,000 m^3 per annum). It was prepared in accordance with the RTA/RMS *Guide to traffic generating developments standards* (RTA 2002) which were developed from the international *Highway Capacity Manual* standards.

The site is well serviced by arterial roads, with access to the Princes Highway. A substantial proportion of bulk construction materials are transported to the site by rail, with some transport by road. All concrete and bulk materials despatched from the site are transported by road.

The traffic assessment considered traffic impacts of Modification 10. The assessment found that the production increase at the CBP would result in an approximate 7% increase in the overall site daily truck movements. The greatest increase in traffic volumes was found to occur on Burrows Roads South which would experience an increase of approximately 1.4% which would generally be imperceptible. Elsewhere in the locality the future average daily traffic increases from the site traffic were found to typically be less than 0.1%.

The external road network impacts of additional traffic associated with Modification 10 were assessed at key intersections. The SIDRA intersection analysis showed that there would be only minimal changes to the existing intersection peak hour average traffic delays (of between 0.0 to 0.3 seconds per vehicle at each intersection), with no changes to the future intersection maximum traffic queue lengths or LoS, which would remain at level of service (LoS) C/D and LoS D respectively.

A traffic assessment will be undertaken to assess potential impacts associated with traffic generation from the site associated with Modification 11, including construction and operational traffic. The assessment will be in accordance with the *Guide to Traffic Generating Developments* (RTA 2002), and will include an assessment of:

- existing traffic levels on the transport routes and intersections used by the site;
- predictions of traffic generated by the site; and
- potential impacts to road and intersection capacity during the construction and operational phases of the proposed modification.

The assessment will be undertaken in consultation with key regulatory authorities (RMS and Inner West Council) to ensure that traffic matters are adequately assessed.

The traffic assessment would be documented in a report which will be appended to the EA.

6.5 Surface water

Surface water runoff on the site is largely captured and contained onsite. Water is recycled and reused onsite for dust suppression, the cleaning of the concrete agitators and the slump stands. Mains water is also used as required.

During high rain events (ie storms or long sustained periods of rain), water from the site is discharged into the Alexandra Canal. To ensure that discharges during these events do not pollute the canal, the water management system contains a first flush system.

There is no water quality criteria within the consent for site discharges.

The *Alexandra Canal Flood Study* was completed by Cardno in 2014. The downstream boundary of the study is Canal Road, which is located 350m upstream of the site. This flood study adopted a 100 year level at the downstream boundary of 2.5m AHD (sourced from a *2009 Cooks River Flood Study*). A similar flood level would be expected at the site. Site levels are generally above 2.5m AHD, so flooding is not expected to constrain the project.

A surface water assessment will be undertaken to assess likely impacts of Modification 11. The assessment will include a revised surface water management plan that will be prepared for the site and proposed increased operations at the CBP and handling facility. The surface water assessment will include:

- a review relevant guidelines to establish an appropriate water quality control strategy for the CBP;
- preparation of a surface water management plan for the proposed modification that clearly depicts:
  - how stormwater will be managed on the site;
  - the extent and nature of water quality controls;
- preparation of a water balance that documents expected water use and stormwater runoff volumes from the site;

- review options for potential alternative water supply options, including stormwater harvesting from local drainage or supply from any local recycled water supply systems; and
- consideration of flood risk management through a review of existing information and outlining a flood evacuation plan.

The assessment will be undertaken in consultation with the EPA and Inner West Council to ensure that matters are adequately assessed.

The surface water assessment would be documented in a report which will be appended to the EA.

6.6 Contamination

State Environmental Planning Policy No. 55 - Contamination of Land (SEPP 55) requires:

> A consent authority must not consent to the carrying out of any development on land unless:
>
> (a) it has considered whether the land is contaminated, and
>
> (b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and
>
> (c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.

Contamination investigations were undertaken at the site historically as part of the DA for the site in 1996. They identified some contamination as a result of some historic filling of the site and previous industrial uses. The development consent required that remediation of the contamination was required prior to any construction being undertaken on the site. This was subsequently undertaken to the satisfaction of the EPA.

No activities have been undertaken on the site since the development consent was granted which would lead to further contamination of the site.

Modification 11 will involve some earthworks, including the construction of footings for the upgrade to the CBP and handling facility, as well as associated works such as the constructions of new dump stations. These earthworks may expose or disturb contaminated soil and could also expose acid sulphate soils.

To address SEPP 55, a contamination assessment will be undertaken for the proposed modification, targeted at areas where soils will be disturbed.

The contamination assessment will be undertaken in consultation with the EPA and Inner West Council to ensure that matters are adequately assessed.

The contamination assessment would be documented in a report which will be appended to the EA.

6.7 Historic heritage

The site adjoins the Alexandra Canal, which is listed as a heritage item on the State Heritage Register (SHR) and the Marrickville LEP. The canal is also listed on Botany Bay and Sydney City's local environmental plans. The listing on the SHR states:

> Alexandra Canal is of high historic, aesthetic and technical/research significance. Historically, it is a rare example of 19th century navigational canal construction in Australia, being one of only two purpose built canals in the State, with one other known example in Victoria. It has the ability to demonstrate the NSW Governments initiative to create water transport as a means of developing an industrial complex in the Alexandria and Botany areas and exploiting the use of unemployed labour to achieve its scheme.
>
> It played a seminal role in the changing pattern and evolution of the occupation and industrial uses of the local area and nearby suburbs, which included filling large areas of low lying land for development.
>
> ...

Notwithstanding the above, the proposed modification is unlikely to have any impact on the heritage significance of the Alexandra Canal. The works will not change the character of the site or have any physical impact on the canal.

Consideration of potential heritage impacts on the Alexandra Canal associated with the proposed modification will be provided in the EA. This will include a visual assessment to determine whether the works will be visible from the Alexandra Canal.

A separate heritage assessment is not proposed to be undertaken.

6.8 Hazard and risk

State Environmental Planning Policy No. 33 - Hazardous and Offensive Development (SEPP 33) requires that consent authorities ensure that in considering any application (including an application to modify a development consent) to carry out potentially hazardous or offensive development, they sufficient information to assess whether the development is hazardous or offensive and to impose conditions to reduce or minimise any adverse impact.

In determining whether a development is potentially hazardous or offensive consideration must be given to current circulars or guidelines published by DP&E relating to hazardous or offensive development.

An assessment as to whether operations on the site were potentially hazardous or offensive was undertaken as part of the EIS that accompanied the DA for the site in 1996. The results of this assessment indicated that site operations were not hazardous or offensive, or presented an unacceptable risk to human health or the environment.

Notwithstanding the above, since the assessment undertaken as part of the DA in 1996 was undertaken, DP&E has released new assessment guidelines, namely *Hazardous and Offensive Development Application Guidelines - Applying SEPP 33 (2011)* (Applying SEPP 33). As such, an assessment of the proposed modification will be undertaken against these guidelines. First, a risk screening analysis will be undertaken in accordance with Applying SEPP 33 to determine if the proposal is potentially hazardous or offensive. If it is deemed to be potentially hazardous or offensive, a full hazardous and risk assessment will be undertaken, however, based on experience, this is considered to be unlikely.

It should be noted that the site does not contain and fuel storages or store hazardous chemicals. Admixtures used in the production of concrete are not deemed to be dangerous goods and do not require licensing.

6.9 Visual

The proposed modification will involve a number of additions to the CBP and the handling facility. As described in Chapter 3, for the CBP, conceptually this includes increasing the number of storage bins from 14 to 28, the number of silos from six to 12, and the number of loading bays from two to four. Additional slump stands will also be required. For the handling facility this will include reconfiguring the storage bunkers and stockpile area by providing new larger concrete bunkers and an overhead conveyor system.

These additions will alter the external appearance of the site. While these additions will not be significant in the industrial setting of the local area, a qualitative visual assessment will be prepared to assess potential impacts of the proposed modification. The visual assessment will consider potential impacts from potentially sensitive viewing locations in the surrounding area.

The visual assessment would be documented in a report which will be appended to the EA.

6.10 Ecology

The site is predominantly hard stand. Notwithstanding this, the proposed modification will require the disturbance of some non-hardstand areas in the south eastern corner of the site as part of works to extend the car park. These works will disturb some vegetation, mainly grassland.

An ecology assessment will be undertaken to the impact of the disturbance of the vegetation. The ecology assessment would be documented in a report which will be appended to the EA.

6.11 Aboriginal cultural heritage

The proposed modification will require the disturbance of some non-hardstand areas in the south eastern corner of the site as part of works to extend the car park. These non-hardstand areas are not natural and have been subject to filling and past earthworks. As such, it is highly unlikely that these areas would contain any extant Aboriginal site or items or have any cultural significance. As such, an Aboriginal cultural heritage assessment is not proposed to be undertaken as part of the EA.

6.12 Groundwater

Groundwater at the site is generally 1 to 2 m below ground level. Groundwater flow is likely to be towards the Alexandra Canal.

Footings for the additions to the CBP and handling facility, as well as works like the new dump stations, may be constructed below the groundwater level. While construction of these footings and works is unlikely to have any impact on groundwater levels or quality underlying the site, consideration of these potential impacts will be provided in the EA.

6.13 Social and economics

The proposal will have social and economic benefits to the local community and wider Sydney region associated with direct and indirect economic benefits of the proposed increase in production of the CBP.

Consideration of potential social and economic impacts associated with the proposed modification will be provided in the EA, however separate social and economic assessments are not proposed to be undertaken.

7 Conclusion

Boral's site at 25 Burrows Road South, St Peters contains a CBP and a handling facility for construction materials. Materials are predominantly received at site by rail from Boral's Peppertree and Dunmore quarries, and Berrima Cement Works. Concrete from the CBP and construction materials from the handling facility are despatched by road.

The existing development consent for the site, which was granted in 1996 by the then NSW Minister for Planning and Infrastructure, has been modified ten times, principally to change the layout of operations on the site. The latest modification to the consent (Modification 10) aimed to simplify the consent (ie remove complexity) and allowed for an increase in production at the CBP by 10% to 280,000 m^3.

Housing and infrastructure construction activities are continuing to drive record demands in the Sydney construction materials market. A healthy residential housing market along with a pipeline of fully funded infrastructure works including North West Rail Link, WestConnex, NorthConnex, the CBD and South East Light Rail and Sydney Metro is driving the demand for aggregate and concrete products.

As such, Boral has undertaken a review into all existing facilities within the Sydney area to identify where site improvements can be made to increase efficiency and production. The site's location in close proximity to Sydney's CBD, with good linkages to major roadways heading south and north, and its ability to rail construction materials into the site, make it an ideal site for upgrading to increase efficiency and production.

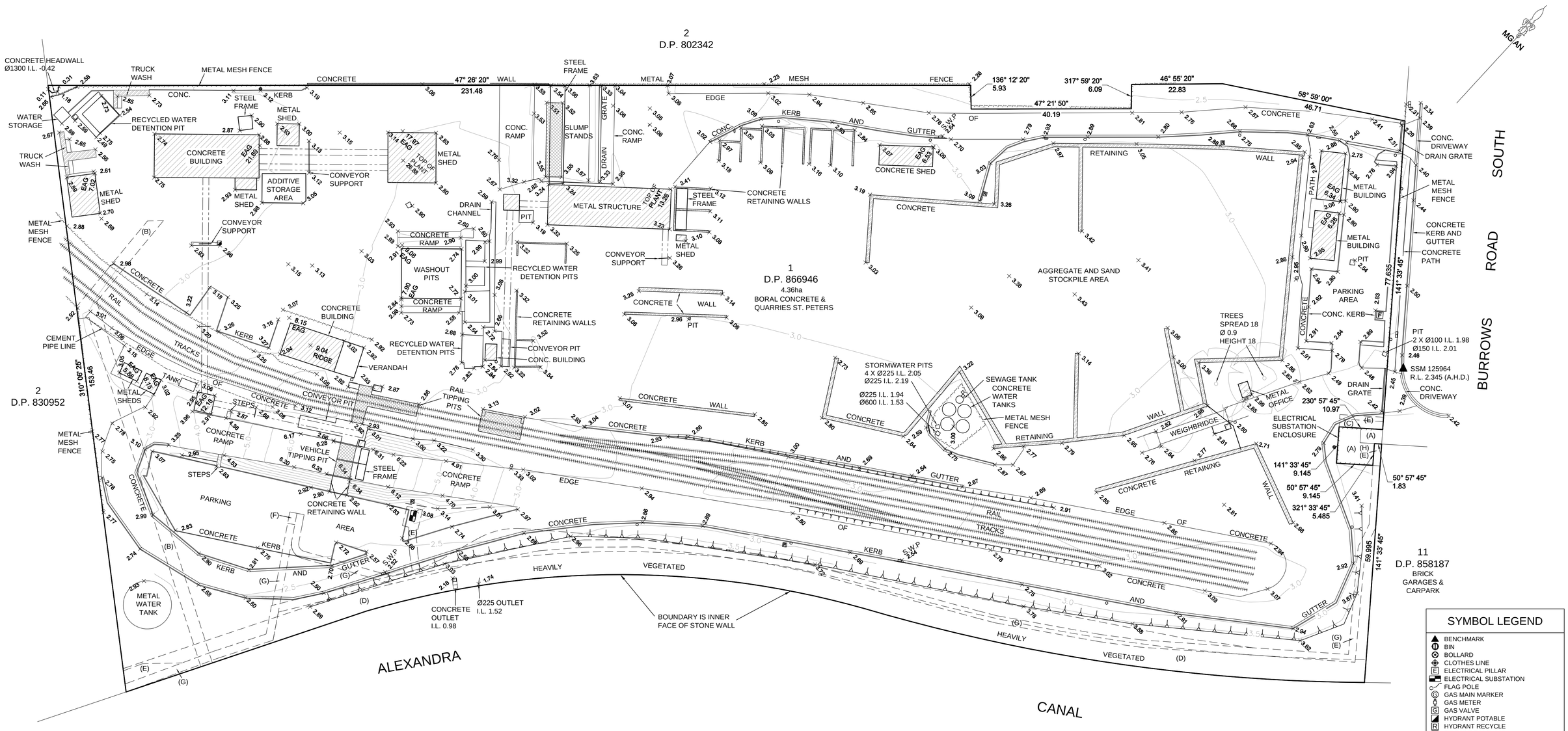
An application under section 75W of the EP&A Act (Modification 11) is proposed to modify the site's development consent to:

- increase production at the CBP from 280,000 m^3 to 750,000 m^3 per annum;
- increase the throughput of the handling facility from 759,000 tpa to 1 Mtpa; and
- upgrade the CBP and handling facility to facilitate these increases in production and throughput.

The purpose of this document is to seek SEARs for the EA to accompany the proposed modification.

Appendix A

Survey plan of site



IMPORTANT NOTES

1 THE LEVELS AND SURVEY DETAIL SHOWN HEREON HAVE BEEN DETERMINED BY TRIGONOMETRICAL METHODS AND ARE WITHIN THE GENERALLY ACCEPTED ACCURACY FOR SUCH A SURVEY.

2 ANY UTILITIES SHOWN HEREON HAVE BEEN PREPARED FROM A COMBINATION OF FIELD SURVEY AND OFFICE CALCULATION. THE PLAN MAY NOT SHOW THE FULL EXTENT OF ABOVE GROUND STRUCTURES OR SUB SURFACE UTILITIES AND SHOULD NOT BE USED FOR LOCATING SUB SURFACE PIPES, CABLES, CONDUITS OR STRUCTURES. PRIOR TO ANY EXCAVATION OR CONSTRUCTION IT IS RECOMMENDED A FULL DIAL BEFORE YOU DIG SEARCH BE UNDERTAKEN BY CONTACTING DBYD ON PH. 1100 OR WWW.1100.COM.AU.

3 THE RELATIONSHIP OF IMPROVEMENTS TO PROPERTY BOUNDARIES IS DIAGRAMMATIC ONLY. IF ANY WORK IS PLANNED WHICH RELIES ON CRITICAL SETBACKS FROM ANY BOUNDARY IT IS IMPERATIVE THAT FURTHER SURVEY WORK BE CARRIED OUT TO DETERMINE PROPERTY BOUNDARIES. DO NOT RELY ON SCALED DIMENSIONS.

4 THE LOT DIMENSIONS SHOWN HEREON HAVE BEEN COMPILED FROM PLANS SUPPLIED BY LAND AND PROPERTY INFORMATION NSW.

5 THE SPREAD OF THE CROWN OF THE TREES SHOWN HEREON IS DIAGRAMMATIC ONLY BASED ON THE AVERAGE SPREAD OBSERVED ON SITE. IT IS RECOMMENDED THAT TREE SPREADS BE VERIFIED BY SITE INSPECTION SHOULD A DEVELOPMENT PROPOSAL BE AFFECTED BY TREES.

6 ALL LEVELS MUST BE REFERRED BACK TO THE BENCHMARK SSM 125964 R.L. 2.347 (A.H.D.) THE ORIGIN OF THIS LEVEL IS S.C.I.M.S.

7 THE CONTOUR INTERVAL IN METRES IS 0.5

THE ABOVE NOTES ARE AN INTEGRAL PART OF THIS PLAN

(A) AUSGRID SUB-STATION SITE, LOT 1 D.P. 109101 & LOT 1 D.P. 339419
(B) DRAINAGE EASEMENT 3.05 WIDE - C588175
(C) EASEMENT FOR ELECTRICITY PURPOSES 0.915 WIDE - N242491
(D) EASEMENT FOR ACCESS 5.79 WIDE - C588175
(E) RIGHT OF WAY & EASEMENT FOR ELECTRICITY PURPOSES 1.83, 2 & 4 WIDE & VARIABLE - AJ71566
(F) EASEMENT FOR ELECTRICITY PURPOSES 1.83, 0.425 & 0.075 WIDE - N242491
(G) EASEMENT FOR ELECTRICITY PURPOSES 1.83 WIDE - N242491
(H) EASEMENT FOR TRANSMISSION LINE - G226822

DIAL BEFORE YOU DIG www.1100.com.au

Scale 1:500 (A1)
Scale 1:1000 (A3)
0 10 20 30 40 50 metres

SYMBOL LEGEND

- BENCHMARK
- BIN
- BOLLARD
- CLOTHES LINE
- ELECTRICAL PILLAR
- ELECTRICAL SUBSTATION
- FLAG POLE
- GAS MAIN MARKER
- GAS METER
- GAS VALVE
- HYDRANT POTABLE
- HYDRANT RECYCLE
- FIRE HYDRANT
- LIGHTPOLE
- PHONE BOX
- POWER POLE
- PVC RISER
- SEWER INSPECTION POINT
- SEWER MANHOLE
- SEWER VENT
- SEWER MAINTENANCE SHAFT
- SIGN
- STOP VALVE POTABLE
- STOP VALVE RECYCLE
- TELSTRA PILLAR
- TELSTRA PIT SINGLE
- TELSTRA PIT DOUBLE
- TRAFFIC LIGHTS
- TRAFFIC LIGHTS CONTROL BOX
- TREE STUMP
- WATER AIR VALVE
- WATER METER
- SUBSOIL FLUSHING POINT
- SURVEY MARK (CONC. BLOCK)
- SURVEY MARK (D.H. & W.)
- SURVEY MARK (G.I.P.)
- SURVEY MARK (PEG)
- SURVEY MARK (S.S.M. & P.M.)
- SURVEY MARK (TRAVERSE STATION)
- TOP OF GUTTER LEVEL
- RIDGE LEVEL
- FLOOR LEVEL
- CHIMNEY LEVEL
- PARAPET LEVEL
- TOP OF BATTER

No.	AMENDMENT DESCRIPTION	BY	DATE
B	AMEND SOME LABELS	C.P.	3/05/16
A	FIRST ISSUE	B.W.	5/04/16

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Designed:	Scale: 1:500	Principal: BORAL	Drg. No. 5444-DET1_B
Drawn: B.W.	Datum: A.H.D.	Project: PLAN OF DETAIL & LEVELS OVER LOT 1 IN D.P. 866946 KNOWN AS No. 25-27 BURROWS ROAD SOUTH, ST. PETERS.	Sheet No. 1 of 1 sheets
Checked: C.P.	Date: 5/04/16		Our Ref: 5444
L.G.A: MARRICKVILLE	A1		

Appendix B

Conceptual plans of upgrade to CBP and handling facility

New aggregate storage bins

New silos & load bays

New slump stands

Future tipper driveover dump station

New aggregate reclaiming conveyor

New aggregate storage walls (concrete)

New overhead conveyor with 'tripper' car

23x existing carparks

New aggregate incline conveyor

New aggregate storage bins

New 2nd weighbridge

7x new carparks & driveover water mgt tanks

New dump station and conveyor

40x existing carparks

12x new carparks

	Revision	Drn	Date
1	Separate Batch Plant	RF	1-05-17
2	4 Alleys Batch Plant	RF	12-12-17

BORAL RESOURCES (NSW) PTY LTD
St Peters Concrete Batch Plant
& Aggregate Terminal

Title
Proposed Mod 11 works

Drawn R.F.
Date 12-12-2017
Scale nts

Drawing Number
St Peters 4 Alleys Batch Plant
& Terminal 20171212

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