



Boral St Peters Terminal Modification 12

Establishment of a Site-wide Traffic Limit and Increase in
Materials Handling Facility Throughput

State Significant Development Modification Assessment
(DA 14/96 MOD 12))

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Glossary

Abbreviation	Definition
BCA	Building Code of Australia
CIV	Capital Investment Value
Council	Inner West Council
Department	Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPI	Environmental Planning Instrument
EPL	Environment Protection Licence
ESD	Ecologically Sustainable Development
LEP	Local Environmental Plan
Minister	Minister for Planning and Public Spaces
MOD 11	Modification 11 to DA 14/96
MOD 12	Modification 12 to DA 14/96
Planning Secretary	Secretary of the Department of Planning, Industry and Environment
PM_{2.5}	Particulate matter less than 2.5 micrometres in aerodynamic equivalent diameter
PM₁₀	Particulate matter less than 10 micrometres in aerodynamic equivalent diameter
RMS	Roads and Maritime Services, TfNSW
SEARs	Planning Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
SRD SEPP	State Environmental Planning Policy (State and Regional Development) 2011
SSD	State Significant Development
TfNSW	Transport for NSW

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1 Introduction

This report provides an assessment of an application to modify the State significant development (SSD) application for the Boral St Peters concrete batching plant (CBP) and materials handling facility. Boral Resources (NSW) Pty Ltd (the Applicant) seeks approval to set a site-wide traffic limit for the CBP and materials handling facility operations at its St Peters terminal. The modification also seeks to increase the throughput of the materials handling facility from one million tonnes per annum (tpa) to 1.75 million tpa. The proposed modification necessitates only minor infrastructure works relating to air quality mitigation measures.

The application has been lodged pursuant to the section 4.55(1A) of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.1 Background

The Applicant operates a CBP and materials handling facility at 25 Burrows Road South, St Peters, approximately seven kilometres (km) south-west of the Sydney Central Business District (CBD), in the Inner West local government area (see **Figure 1**). The development has operated since 1997.



Figure 1 | Site Location

The site is zoned IN1 General Industrial under the Marrickville Local Environmental Plan 2011 (Marrickville LEP) and is primarily surrounded by industrial land uses also zoned IN1 General Industrial. The site is bordered by Burrows Road South to the north-east, Alexandra Canal along the south-east, the Botany Goods rail line to the south-west and industrial land uses to the north-west, including the Boral Recycling

facility. The nearest residences are in Tempe and Sydenham on the Princes Highway, approximately 600 metres (m) to the north-west of the site.

The majority of bulk construction materials (aggregate, sand and cement) are currently received by rail via the Botany Goods Line from four different Boral operations - Berrima Cement, Peppertree Quarry, Dunmore Quarry, and Dunmore Sand and Soils. The 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. The remaining bulk construction materials for the handling facility as well as cement, fly ash and admixtures for the CBP are delivered to the site by road. All concrete and construction materials are despatched from the site by concrete agitators and trucks, respectively. **Figure 2** provides a flow diagram of the current operations at the site.

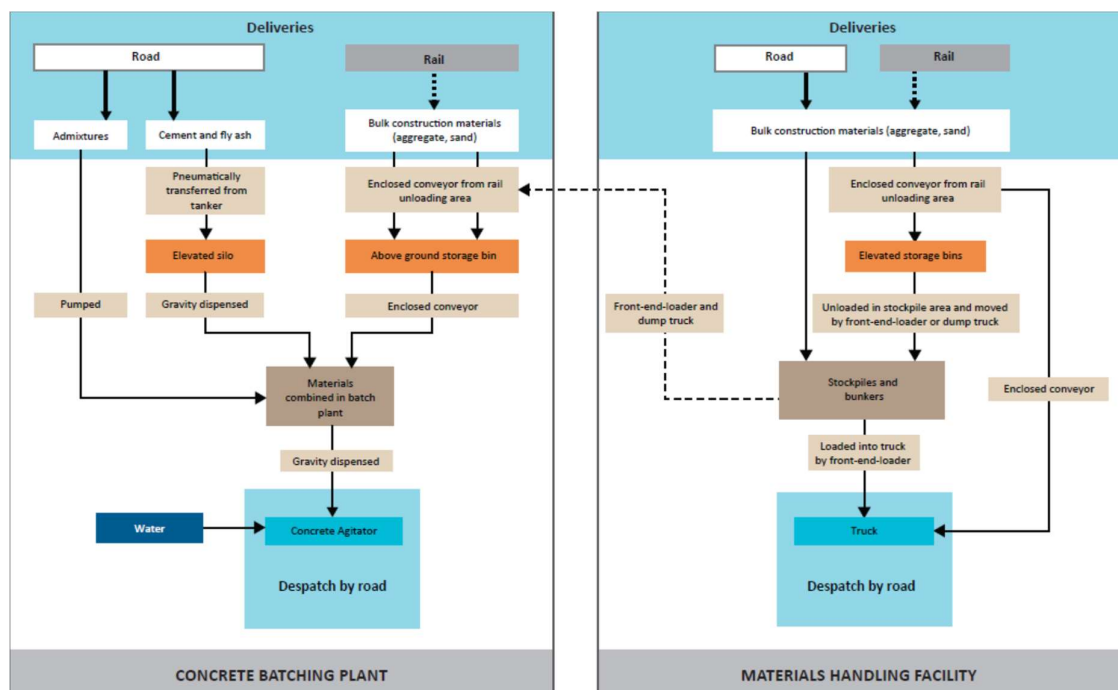


Figure 2 | Site Operations

The CBP has approval to produce up to 750,000 cubic metres (m³) of concrete per annum. The current approved bulk construction material throughput of aggregates and sand at the handling facility is one million tonnes per annum (Mtpa). The handling facility is in the centre and north-eastern part of the site, the CBP is in the south-western corner. An office and carpark are in the north-eastern corner, adjacent to Burrows Road South, sited between the main entry and exit driveways.

A rail siding runs along the south-eastern side of the site adjacent to the Alexandra Canal. There are two train unloading areas, one for the CBP and one for the handling facility. The current site layout is illustrated in **Figure 3** below.

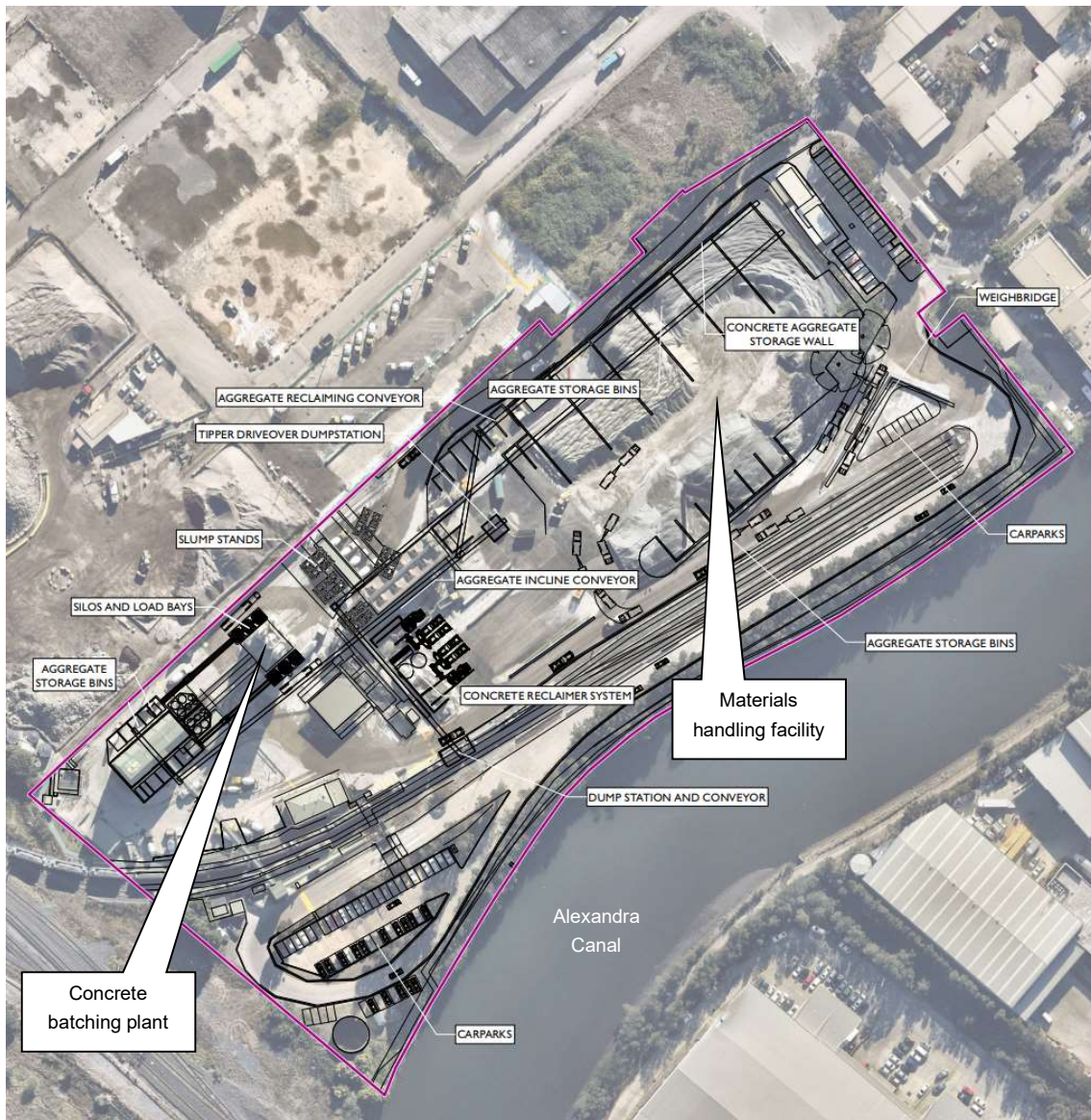


Figure 3 | Site Layout

Access to and egress from the site for both heavy and light vehicles is via two driveways off Burrows Road South. Internal roads allow for all vehicles to enter and exit the site in a forward direction. The majority of site traffic travels to and from the site via Canal Road and the Princes Highway. Key intersections include:

- Princes Highway and Canal Road
- Burrows Road South, Canal Road and Ricketty Street.

The WestConnex Interchange is located to the north of the site on the corner of The Princes Highway and Canal Road. The interchange is currently under construction. The road network surrounding the site is illustrated in **Figure 4**.

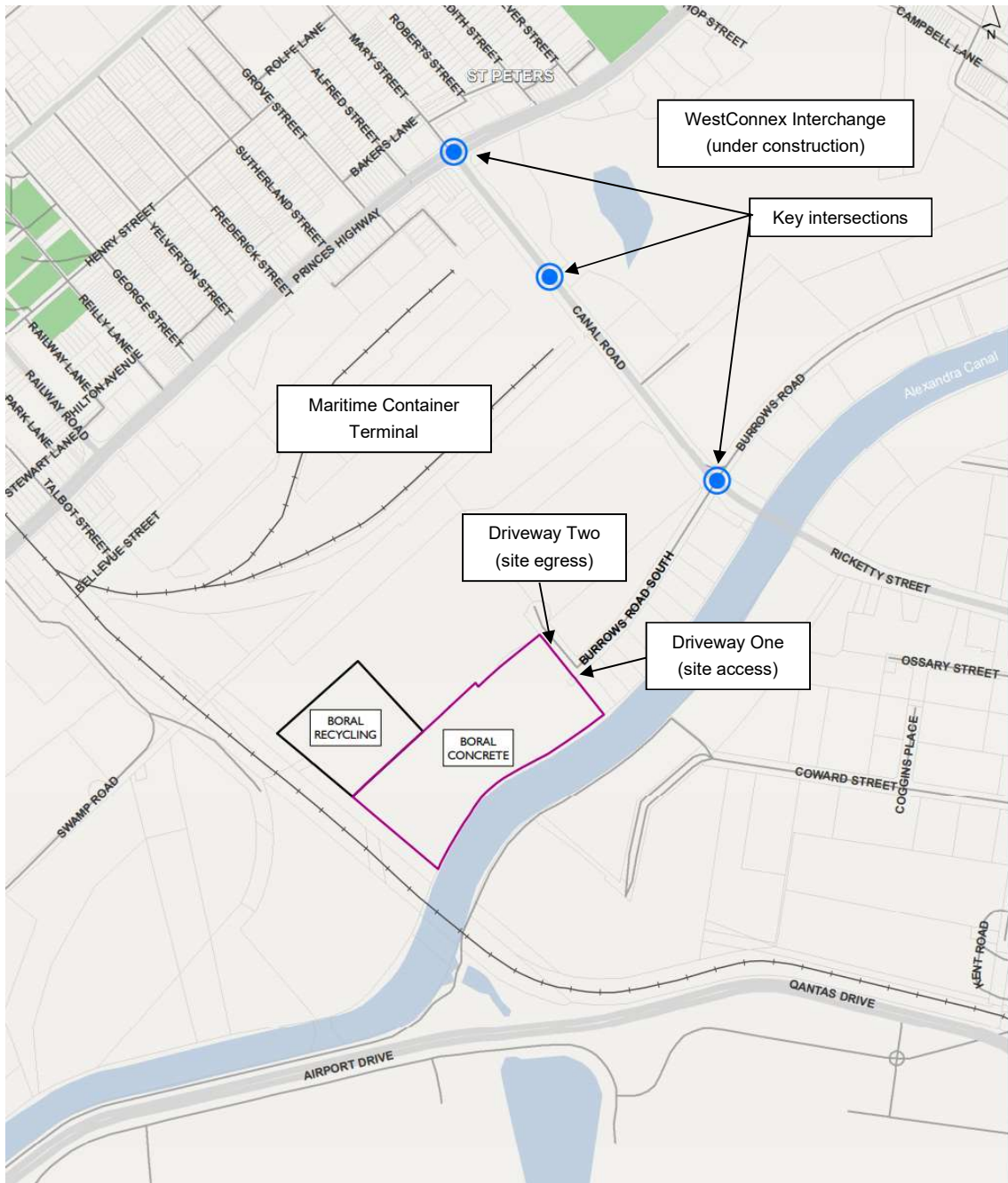


Figure 4 | Site access and surrounding road network

1.2 Approval history

On 6 September 1996, the then Minister for Planning granted development consent for the construction and operation of the CBP, an asphalt plant and the handling facility (DA 14/96) under Part 4 of the EP&A Act and State Environmental Planning Policy No.34 – Major Employment-Generating Industrial Development (SEPP 34) (now repealed). The asphalt plant was decommissioned and demolished in 2002.

The development consent includes the following conditions relevant to the modification request:

- Condition A5

The annual production of the concrete batching plant must not exceed 750,000 m³ and the annual throughput of the construction materials handling facility must not exceed one million tonnes.

- Condition A6

The Applicant must:

- ensure the maximum hourly truck movements during the morning peak (7 am to 9 am) and afternoon peak (4 pm to 6 pm) do not exceed the limits outlined in Table 1 below:

Table 1 | Maximum hourly vehicle movements from concrete batching plant

Period	Hourly Two-way Movements
7 am – 9 am	88
4 pm – 6 pm	88

- prepare and submit a quarterly report on heavy vehicle truck movements during the morning and afternoon peak periods to Council and the Planning Secretary until the completion of WestConnex Stage 3, unless otherwise agreed to by the Planning Secretary.

The development consent has been modified on 11 occasions (see **Table 1**). The most recent modification (MOD 11) approved a major upgrade and expansion of the site, including a range of additional air quality mitigation measures.

Table 1 | Summary of Modifications

Mod No.	Summary of Modifications	Approval Authority	Type	Approval Date
MOD 1	Modify site layout	Minister	s102	12 May 1997
MOD 2	Commence operations prior to construction of rail siding	Minister	s96(2)	8 December 1998
MOD 3	Receipt and storage of butane gas	Minister	s96(2)	25 June 1999
MOD 4	Modify site layout	Minister	s96(2)	7 April 2000
MOD 5	Modify site layout	Minister	s96(1A)	23 August 2001
MOD 6	Modify site layout	Minister	s96(1A)	16 May 2003
MOD 7	Modify site layout	Minister	s96(1A)	5 May 2004
MOD 8	Rail siding upgrade	Department	s75W	14 January 2013
MOD 9	Site reconfiguration	Department	s75W	4 July 2013
MOD 10	Production limit increase	Department	s75W	1 November 2016
MOD 11	Upgrade and expansion	Department	s75W	31 January 2019

2 Proposed modification

2.1 Proposed Modification

The Applicant has lodged a modification application under section 4.55(1A) of the EP&A Act to modify the Boral St Peters CBP and materials handling facility development consent. The modification application seeks to establish a site-wide traffic volume limit and increase the throughput of the materials handling facility from one million tpa to 1.75 million tpa. The modification is described in full in the Statement of Environmental Effects (SEE) included in **Appendix B**.

The modification is proposed to provide more flexibility to the site by combining the site's overall traffic volumes from the CBP and handling facility and setting a site-wide maximum peak hourly traffic limit, rather than a traffic volume limit on CBP operations only. This would allow an increase in production volumes/throughput at one of the site's operations, while correspondingly reducing at the other. The worst-case operational scenario for this is an increase for the handling facility throughput from 1 Mtpa to 1.75 Mtpa whilst correspondingly decreasing the concrete plant production from 750,000 m³ to 650,000 m³.

The proposed modifications to the traffic movements, throughput and production as compared to those approved under MOD 11 are summarised in **Table 2** below.

Table 2 | Approved and proposed traffic movements

	MOD 11 CBP: 750,000 m ³ Handling facility: 1Mtpa		MOD 12 CBP: 650,000 m ³ Handling facility: 1.75Mtpa	
	Approved daily movements	Approved peak hourly movements	Proposed daily movements	Proposed peak hourly movements
Concrete batching plant	524 in 524 out (1046 total)	44 in 44 out (88 total)	454 in 454 out (908 total)	44 in 44 out (88 total)
Materials handling facility	92 in 92 out (184 total)	9 in 9 out (18 total)	161 in 161 out (322 total)	18 in 18 out (36 total)
Total site movements	616 in 616 out (1232 total)	53 in 53 out (106 total)	615 in 615 out (1230 total)	62 in 62 out (124 total)

To facilitate the changes, the modification application seeks to modify the following conditions of consent as set out below (in **bold** and strikethrough).

Condition A5

The annual production of the concrete batching plant must not exceed 750,000 m³ and the annual throughput of the construction materials handling facility must not exceed ~~one~~ **1.75** million tonnes.

Condition A6

The Applicant must:

- a) ensure the maximum hourly truck movements during the morning peak (7 am to 9 am) and afternoon peak (4 pm to 6 pm) do not exceed the limits outlined in Table 1 below:

Table 1 | **Total** maximum hourly vehicle movements from concrete batching plant **and materials handling facility**

Period	Hourly Two-way Movements
7 am – 9 am	88 124
4 pm – 6 pm	88 124

- b) prepare and submit a quarterly report on heavy vehicle truck movements during the morning and afternoon peak periods to Council and the Planning Secretary until the completion of WestConnex Stage 3, unless otherwise agreed to by the Planning Secretary.

Additional Air Quality Mitigation Measures

The dispersion modelling completed for MOD 11 highlighted that a key contributing source of particulate matter emissions is the transfer of aggregate and sand material to the handling facility via the new elevated conveyor and tripper car (approved as part of the expansion works). In order to further control emissions from this area, the Applicant has incorporated some additional mitigation measures into the design of this infrastructure, including:

- addition of a telescopic chute with water sprays at the tripper car to improve the capture of emissions from the unloading of material and lower the height of release to below the storage bunker walls
- revised design of the bunker walls, with the concrete side walls angled up towards the tripper car to provide improved shielding.

2.2 Applicant's Justification for the Proposed Modification

The Applicant is proposing to modify the site's development consent to establish a site-wide traffic volume limit to provide the site with more flexibility to increase the throughput at the materials handling facility when CBP volumes are low, and conversely, reduce the handling facility throughput volumes when the CBP volumes are high. This provides the business the ability to react to sector fluctuations.

The Applicant has advised that, given the existing one Mtpa restriction at the materials handling facility, the Applicant has not been able to rail in hard rock to the facility since mid-2019, and has instead been transporting these aggregates into Sydney via truck. The modification will permit additional aggregates to be received via rail, reducing the overall impacts on the Sydney road network.

The Applicant considers the benefits of removing trucks from the wider Sydney metropolitan and NSW road network justifies a very small increase in impact on the Burrows Road South, Burrows Road, Ricketty Street and Canal Road intersection, which is already heavily constrained. Further, the identified impacts at this intersection will be temporary, given other traffic volumes will greatly reduce in 2023, when WestConnex Stage 3 opens.

3 Strategic context

3.1 Greater Sydney Region Plan

In March 2018, the Greater Sydney Commission released the 'Greater Sydney Region Plan: A Metropolis of Three Cities' (the Plan). The Plan is built on a vision of three cities, the Western Parkland City, the Central River City and the Eastern Harbour City. The 40-year vision to 2056 brings new thinking to land use and transport patterns to boost Greater Sydney's liveability, productivity and sustainability by spreading the benefits of growth. The Boral St Peters site is located within the Eastern City District.

The proposed modification is consistent with the Plan's direction of 'A city supported by infrastructure: Infrastructure supporting new developments' and 'An efficient city: Using resources wisely' and supports Planning Priority E1 – 'Planning for a city supported by infrastructure' and Planning Priority E19 – Reducing carbon emissions and managing energy, water and waste efficiently'.

The proposed modification would contribute toward the delivery of construction materials for transport infrastructure to establish connections within each of the three cities and for making connections between the three cities. It will also contribute to a reduction in carbon emissions through the provision of new public transport infrastructure and utilising rail for the transport of construction materials.

4 Statutory context

4.1 Scope of Modification

The Department has reviewed the scope of the modification application and is satisfied that the proposed modification would result in minimal environmental impacts, and relates to substantially the same development as the original development consent on the basis that:

- the primary function and purpose of the approved project would not change as a result of the proposed modification
- the modification is of a scale that warrants the use of section 4.55(1A) of the EP&A Act
- any potential environmental impacts would be minimal and appropriately managed through the existing or modified conditions of approval.

Therefore, the Department is satisfied the proposed modification is within the scope of section 4.55(1A) of the EP&A Act and does not constitute a new development application. Accordingly, the Department considers that the application should be assessed and determined under section 4.55(1A) of the EP&A Act rather than requiring a new development application to be lodged.

4.2 Consent Authority

The Minister for Planning and Public Spaces is the consent authority for the application under section 4.5(1) of the EP&A Act. Under the Minister's delegation of 9 March 2020, the A/Director, Industry Assessments, may determine the application under delegation as:

- the application has not already been referred by the Planning Secretary to the Independent Planning Commission as at the date of the delegation
- a political disclosure statement has not been made and
- there are less than ten public submissions in the nature of objections (no objections were received).

5 Engagement

5.1 Department's Engagement

Clause 117(3B) of the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation) specifies that the notification requirements of the EP&A Regulation do not apply to State significant development. Accordingly, the application was not notified or advertised. However, it was made publicly available on the Department's website on 25 September 2019 and was referred to the Environment Protection Authority (EPA), Transport for NSW (TfNSW) and Inner West Council (Council) for comment.

5.2 Key Issues – Government Agencies

Council did not object to the modification but raised concerns regarding any potential impacts on the local traffic network as a result of an increase in traffic volumes during peak times. Council advised any increase should be closely scrutinised to ensure the local traffic network can adequately cope with additional traffic movements, specifically the Burrows Road South / Burrows Road / Ricketty Street / Canal Road intersection.

Council also advised it considered the removal of production and throughput limits on the consent was not appropriate as these limits control the intensity of the site's use and limit environmental impacts.

TfNSW did not object to the modification but raised concerns regarding the impact of the additional peak hourly movements on the Burrows Road South / Burrows Road / Ricketty Street / Canal Road intersection. TfNSW recommended the Applicant be required to justify how the additional truck movements can be accommodated in the peak period or be redistributed outside the peak period with an updated Plan of Management.

EPA did not object to the modification and noted the development would not require an Environment Protection Licence (EPL) and that the EPA is the appropriate regulatory authority (ARA) for the proposed activity.

The **Department**:

- advised there was insufficient information to demonstrate the increase in peak hourly traffic movements would not have an adverse impact on key intersections, in particular the Burrows Road South/ Burrows Road/ Ricketty Street / Canal Road intersection
- requested additional information, using SIDRA modelling, to demonstrate the level of service at key intersections would not be reduced as a result of the modification
- advised it was not appropriate to remove the production and throughput limits on the consent as this would be inconsistent with the approach to regulating other developments of a similar nature.

5.3 Response to Submissions

On 4 December 2019, the Applicant submitted a Response to Submissions (RtS) report responding to the issues raised in submissions. The RtS included:

- an additional assessment of traffic impacts, including SIDRA modelling of the predicted impacts on key intersections
- clarification that the modification application seeks to modify the throughput limit for materials handling facility from one million tpa to 1.75 million tpa on the following basis:
 - when the CBP is at maximum production volume (750,000m³), the corresponding materials handling facility volumes will be one million tpa
 - when the materials handling facility is at maximum throughput volume (1.75Mtpa), the corresponding concrete plant volume will be limited to 650,000 m³.

TfNSW reviewed the SIDRA modelling advised it was satisfied with the Applicant's revised TIA.

Council reviewed the revised TIA and SIDRA modelling and noted the potential for increased delays on the southern approach to the Burrows Road South / Burrows Road / Ricketty Street / Canal Road intersection. Council recommended the Applicant be required to pay the cost of any works required to mitigate the impacts of the development on the intersection, if deemed necessary.

6 Assessment

The Department has assessed the merits of the modification application. During this assessment, the Department has considered the:

- EIS and assessment report for the original application
- existing conditions of consent (as modified)
- the SEE supporting the proposed modification (**Appendix B**)
- submissions from State government authorities and Council (**Appendix C**)
- the Applicant's response to issues raised in submissions
- relevant environmental planning instruments, policies and guidelines
- requirements of the EP&A Act, including the objects of the EP&A Act.

The Department considers the key assessment issues are traffic and air quality. The Department's assessment of other issues is provided in **Table 4**.

6.1 Traffic Impacts

The proposed increase in the throughput of the handling facility and establishment of a site-wide traffic limit during the morning and afternoon peak periods has the potential to impact on the safety and capacity of the surrounding road network. Key intersections potentially impacted by the proposed expansion are:

- Burrows Road South, Canal Road, Ricketty Street and Burrows Road
- The Princes Highway, Canal Road and Mary Street (refer **Figure 4** for location of key transport routes and intersections).

Applicant's Assessment

The modification application included a Traffic Impact Assessment (TIA) prepared in accordance with the RMS's 'Guide to Traffic Generating Developments' (RTA 2002) to quantify and assess the impact of the modification on key intersections and the surrounding road network. The TIA reported the existing level of service (LoS) for the two key intersections as set out in **Table 3**.

Table 3 | Existing level of service at key intersections (including MOD 11 impacts)

Intersection	Peak	Level of Service
Burrows Road South / Burrows Road / Ricketty Street / Canal Road	AM	C
	PM	F
Princes Highway / Canal Road / Mary Street	AM	F
	PM	F

The Applicant's TIA concluded that all site daily and peak hourly heavy vehicle movements would remain essentially the same as previously approved under MOD 11. The Applicant's assessment also concluded the level of service (LoS) would not be reduced at any of the key intersections.

In response to concerns raised by the Department, RMS and Council regarding the conclusions of the TIA and the Applicant's approach to assessing the traffic impacts of the proposed modification, the Applicant submitted a revised TIA in an RtS.

The RtS clarified there would be an increase from a maximum of 106 movement to 124 movements (an additional 18 movements) in the peak periods (generated by the materials handling facility) as a result of the proposed modification (see **Table 2**). However, The Applicant's revised SIDRA modelling found there was a minor increase in delays at the key intersections, however, there was no reduction in the level of service. The impact on queue lengths was not provided.

In recognition of the minor increase in delays at the key intersections, the Applicant noted its construction and demolition waste recycling facility (located north of and immediately adjacent to the CBP and handling facility) closed in early 2020. The closure results in a reduction of approximately 20 movements in the morning and afternoon peak hours along Burrows Road South and at the Burrows Road South / Burrows Road / Ricketty Street / Canal Road intersection. The Applicant therefore advised the net reduction of Boral's overall truck movements along Burrows Road South as a result of the closure of this facility would mitigate for the increase of 18 movements as a result of the proposed modification.

This argument was supported by additional SIDRA modelling in the RtS to predict the impacts of a reduction in movements from the closure of the recycling facility on the delays at the two key intersections in the AM and PM peak. The additional modelling found the predicted delays as a result of the current modification would be reduced to those assessed and approved under MOD 11 and would therefore be negligible.

Submissions

TfNSW and Council advised the Applicant's revised assessment of traffic impacts was satisfactory. TfNSW noted the proposed changes in MOD 12 would not result in any substantial changes to the approved traffic volumes approved under MOD 11 or any major impacts to the surrounding classified road network. However, TfNSW noted there would be additional delays on Burrows Road South (a local road under the care and control of Council) on the north approach to the Burrows Road South / Burrows Road / Ricketty Street / Canal Road intersection (without the closure of the recycling facility). In the PM peak, the north approach on Burrows Road South will result in the average delay going from five to six minutes with 260 m queues.

Council acknowledged the potential for increased delays on the Burrows Road South approach to the Burrows Road South / Burrows Road / Ricketty Street / Canal Road intersection and recommended the Applicant be required to pay the full costs associated with works undertaken by Council to mitigate the impacts of the development on the intersection, if deemed necessary. For the purposes of the condition, relevant works would include the relocation or removal of parking, line marking and/or signage.

Department's Assessment

The proposed modification seeks to modify condition A6 of the consent which stipulates a limit of 88 movements for the maximum hourly vehicle movements from the CBP. This condition was placed on the consent as part of MOD 11 to mitigate traffic impacts from the expansion of the CBP operations on the Canal Road/Princes Highway and Burrows Road South/Canal Road/Ricketty Street intersections.

The Applicant's TIA confirms that with an increase in throughput from one Mtpa to 1.75 Mtpa, the handling facility will generate an additional 18 movements in the AM and PM peak periods. This would increase overall traffic generation from the site during the AM and PM peak periods from 106 movements to 124 movements (see **Table 2**). The modification therefore seeks to allow for a total peak hourly traffic volume of 124 movements for the CBP and the handling facility combined.

The Department is satisfied the Applicant's revised TIA in the RtS provides a robust assessment of the potential traffic impacts of the modification. Based on the advice of TfNSW, the Department is satisfied there is unlikely to be any unacceptable impacts on the surrounding classified road network. While there

will be an increase of 18 movements in the peak hourly traffic movements, total daily movements from the terminal will not increase as a result of the modification (see **Table 2**).

However, it is acknowledged the Applicant's modelling predicts there may be additional minor delays on Burrows Road South (a Council owned road) on the north approach to the Burrows Road South / Burrows Road / Ricketty Street / Canal Road intersection during the PM peak period. The Department therefore concurs with the recommendation of Council to require the Applicant to bear the cost of any works undertaken by Council to mitigate the impacts of the development on the intersection, if deemed necessary. Relevant works would include the relocation or removal of parking, line marking and/or signage to increase the capacity on Burrows Road South for queuing at the intersection.

The Department has recommended this be included as a condition of consent. The Applicant has accepted this condition. It is acknowledged that such works would require the approval of the local Traffic Committee and would be undertaken by Council.

While the Applicant's analysis of the impacts of the modification predict there may be minor increases in delays at the two key intersections, it is acknowledged that since the lodgement of this modification, the lease for the Boral Recycling Facility ended on 29 February 2020. As such, the Applicant's revised TIA has demonstrated the reduction in truck movements to and from this facility is likely to mitigate any minor impacts from the current modification and therefore, with the closure of this facility, there is unlikely to be any residual impacts.

Conclusion

The Department is satisfied the Applicant has satisfactorily demonstrated there will only be a minor increase (18 movements) in peak hourly traffic movements as a result of the proposed modification. It is noted this may result in additional delays on Burrows Road South on the northern approach to the Burrows Road South / Burrows Road / Ricketty Street / Canal Road intersection during the PM peak period. However, it is likely that any minor impacts at key intersections will be less than predicted given the closure of the Boral Recycling Facility in February of this year. Any residual impacts can be managed through minor changes to parking arrangements along this road to increase the queuing capacity, if deemed necessary by Council. Therefore, the Department recommends condition A6 be modified as requested by the Applicant to limit total site-wide peak hourly traffic to 124 movements.

The Department's assessment concludes the proposed modification would be unlikely to have an impact on the safety or capacity of the surrounding road network, including key intersections. Should any minor works be required to be undertaken by Council to increase the queuing capacity along Burrows Road South, Council has agreed to facilitate the relevant Traffic Committee approvals and the Department has recommended a condition to require the Applicant to pay for the cost of any such works.

6.2 Air Quality

The proposed modification has the potential to increase site particulate emissions which may result in an increase in off-site dust deposition and particulate impacts. To assess the potential changes in emissions associated with the proposed modification the Applicant carried out an Air Quality Impact Assessment (AQIA) in accordance with the EPA's 'Approved Methods for Modelling and Assessment of Air Pollutants in NSW' (the Approved Methods guideline).

As the site is in an existing industrial estate, the surrounding area consists primarily of commercial and industrial receptors (R3 to R11). The closest residential sensitive receptors (R1 and R2) are located approximately 600 m to the north-west of the site adjacent to the eastbound lane of the Princes Highway (see **Figure 5**).

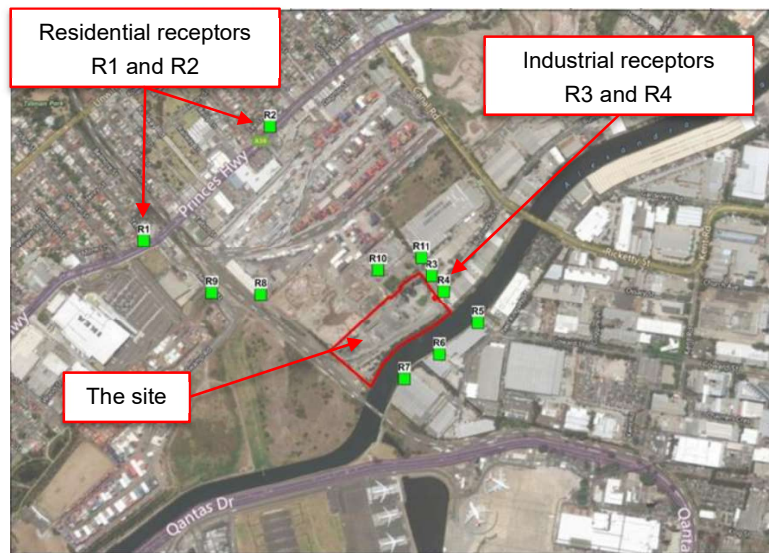


Figure 5 | Location of receptors

The Applicant advised the emissions inventory used in the AQIA assumed a worst-case maximum site material throughput of 1.75 Mtpa for the materials handling facility and a maximum concrete production volume of 650,000 m³ and is therefore considered a conservative upper estimate of likely operational emissions at the site.

The Applicant's AQIA found the proposed modification would result in a decrease in site particulate emissions relative to the previous modification (MOD 11) due to the reduction in the CBP operations and the inclusion of the following additional mitigation measures proposed as part of this modification:

- a telescopic chute with water sprays at the tipper car that transfers aggregate and sand to the handling facility to improve the capture of emissions from the unloading of material and lower the height of release to below the storage bunker walls
- revised design of the handling facility storage bunker walls with the side walls angled up toward the tripper car to provide improved wind shielding.

The Applicant's AQIA concluded:

- the additional mitigation measures would improve the air quality performance of the site relative to the impacts of MOD 11
- the change in predicted incremental concentrations and dust deposition rates at the two residential receptors (R1 and R2) are negligible or predicted to decrease relative to MOD 11
- the predicted cumulative concentrations for annual average Total Suspended Particles (TSP), 24-hour average and annual average PM₁₀ and PM_{2.5} would comply with EPA impact assessment criteria and would be consistent with the predicted impacts in MOD 11 at all residential and industrial receptors
- peak day PM₁₀ and PM_{2.5} and annual average dust deposition impacts at the immediately adjacent industrial receptors (R3, R4, R10 and R11) are predicted to decrease
- the proposed real-time particulate matter monitoring network required by the existing conditions of consent will assist with the management of particulate matter impacts at neighbouring receptors.

Submissions

The EPA did not raise any concerns with the proposed modification or the Applicant's AQIA and advised it supports the proposed additional mitigation measures and real time particulate monitoring network.

Council did not raise any concerns regarding air quality impacts.

Department's Assessment

The Applicant's AQIA provides a robust conservative assessment of the predicted worst-case air quality impacts for when the materials handling facility is at maximum throughput volume (1.75Mtpa) and the corresponding CBP production volume will be at a maximum of 650,000 m³. This analysis has demonstrated there will be no additional air quality impacts beyond those assessed under MOD 11. Appropriate additional mitigation measures are proposed to improve the air quality emissions performance of the site operations.

However, since submitting the modification application and AQIA, the Applicant has subsequently advised the additional mitigation measures proposed as part of the current modification (telescopic chute and revised design of handling facility bunker walls) and the infrastructure upgrades approved under MOD 11 are unlikely to be constructed and operational until mid-2021. Despite this, the Applicant is seeking to implement the site-wide traffic limit and increase the throughput of the materials handling facility immediately. This is a concern, as the Applicant's AQIA assumes all mitigation measures approved under MOD 11 and the additional mitigation measures proposed under MOD 12 would be operational.

The Department therefore requested the Applicant carry out a revised AQIA to assess the impact of increasing the throughput of the materials handling facility from one Mtpa to 1.75 Mtpa with the existing infrastructure and existing mitigation measures on site.

Until the upgrade works approved under MOD 11 are constructed, production volumes at the CBP are constrained by the number of load bays and slump stands (two load bays and two slump stands). As such, the maximum the current CBP configuration can produce annually is 400,000 m³. The revised AQIA was therefore based on the impacts associated with an increase in the materials handling facility to 1.75 Mtpa and a production volume of 400,000 m³ at the CBP.

Revised AQIA

The revised AQIA confirmed all modelled dust deposition levels are predicted to remain below the EPA's incremental impact assessment criterion of 2 grams per square metre per month (g/m²/month) at all receptors. Similarly, the incremental fine particulate concentration and deposition results are below the relevant EPA impact assessment criteria. With the exception of the 24-hour average PM_{2.5} concentrations at modelled locations R3 and R4 (industrial receivers), the predicted cumulative concentrations are all within the relevant EPA impact assessment criteria. The 24-hour average PM_{2.5} concentrations were predicted to marginally exceed the criteria of 25 micrograms per cubic metre (µg/m³) at industrial receptors R3 and R4, being 25.1 µg/m³ (R3) and 25.3 µg/m³ (R4), respectively.

In accordance with the EPA's Approved Methods, the Applicant carried out a more refined assessment (a contemporaneous assessment) and confirmed, for both receptors, this marginal exceedance occurs when the background is elevated (23.9 µg/m³ relative to the criterion of 25 µg/m³). The Applicant also reviewed the current air quality emission mitigation strategies against accepted best practice air pollution emission management practices presented in the 'Cement Concrete and Aggregates Australia Environmental Management Guideline for Concrete Batch Plants October 2019' (CCAA 2019). The Applicant confirmed the existing site air quality emission mitigation strategies are consistent with the CCAA management guidelines.

The EPA advised it is satisfied the Applicant carried out a contemporaneous cumulative impact assessment consistent with the Approved Methods guideline. The revised assessment confirms only one additional exceedance of the impact assessment criteria at the two industrial receptors would occur as a result of the proposed activity and that best management practices will be implemented to minimise emissions of air pollutants as far as is practical. The EPA concurred that, where relevant to the site, the air quality emission mitigation strategies appear consistent with the CCAA management guidelines.

The Department is satisfied the predicted air quality impacts are based on a conservative assumption of peak day operations occurring at the site every day for the entire year. The two exceedances are considered minor and do not represent a significant environmental impact from the proposed increase in site operations. The Applicant has demonstrated it is currently implementing a range of best practice air emission mitigation and management practices.

To ensure site operations reflect the Applicant's assessment of impacts for the proposed operational scenarios, the Department recommends retaining the existing production and throughput limits specified in condition A5 but include an additional provision to allow the Applicant the flexibility to increase the throughput of the materials handling facility subject to a reduction in the CBP production volume.

The proposed modified condition also limits the concrete production to 400,000 m³ until such time the upgrade works and additional air quality mitigation measures have been constructed and implemented on site. The Applicant has agreed to the modified condition.

Conclusion

The Department is satisfied the Applicant's assessment provides a reasonable estimation of the predicted particulate emission impacts of the proposed modification for both the existing configuration on site and the approved upgrade works (but not yet constructed) under MOD 11. Recommended modifications to condition A5 will ensure that if there is an increase in the handling facility operations, the air quality impacts from this increase would be offset by a reduction in the CBP operations for both operational scenarios.

Existing conditions require the Applicant to take all reasonable steps to minimise dust generated during all works authorised by the consent and to implement an Air Quality Management Plan (AQMP) as part of an overarching site Environmental Management and Monitoring Plan (EMMP). The AQMP includes real-time off-site dust monitoring and response procedures. The Applicant has advised it has already installed the real-time particulate matter monitoring network at the boundary of the site and is implementing a trigger action response plan (TARP). The TARP will assist the Applicant by identifying any increase in particulates in the vicinity of the site and will trigger appropriate action by the Applicant to review on-site dust management measures, as required.

The Applicant has recently undertaken a review of dust management practises on site to ensure the site is maintained in a condition that minimises the emission of dust and silt loading on paved surfaces and all reasonable and feasible best practice measures are implemented to minimise dust generated during operations. The Applicant must also prepare and submit an Annual Review to the satisfaction of the Planning Secretary which includes a comprehensive review of all monitoring results, identification of any non-compliances and a description of what actions are being taken to ensure compliance.

The Department's assessment concludes that subject to the Department's recommended modification to condition A5 and the implementation of the Applicant's existing and proposed mitigation measures, the particulate emissions and off-site dust deposition impacts are predicted to be negligible and any residual impacts can be appropriately managed.

6.3 Other Issues

Table 4 | Assessment of Other Issues

Issue	Findings	Recommendations
Noise	<ul style="list-style-type: none"> A noise and vibration impact assessment (NVIA) was prepared by the Applicant to assess the potential noise 	Retain existing conditions.

impacts of the proposed modification in accordance with relevant EPA guidelines.

No additional conditions are required.

- Three off-site representative noise sensitive locations were identified, including two residential receptors (R1 and R2) and one industrial receptor (R3).
 - It is noted that although a reduction in the numbers of concrete agitators is anticipated as a result of MOD 12, the quantity of concrete agitators has been assumed to be the same as that in MOD 11 and therefore represents a worst-case assessment scenario.
 - The only additional sources are the increased road truck movements within the handling facility.
 - Noise assessment criteria for the site are specified in condition B24 of the consent for day and night periods at two locations which are representative of residences with the most potential to be impacted by the site.
 - The NVIA found:
 - LAeq,15min noise levels from the proposed increase in road truck numbers would be negligible
 - proposed night-time operations are unlikely to cause sleep disturbance at residential assessment locations
 - there would be a negligible increase in road traffic noise levels at the nearest residential locations.
 - Council and EPA did not raise any concerns regarding noise impacts as a result of the modification.
 - The Department is satisfied the Applicant's NVIA has demonstrated the potential noise impacts from the modification are predicted to be negligible. Noise will continue to be regulated at the site by the existing noise limits in condition B24, the site EMMP and the requirement to report on compliance in an Annual Review (condition C9).
 - The Department's assessment concludes there is unlikely to be an additional noise impacts as a result of the proposed modification.
-

7 Evaluation

The Department has assessed the proposed modification and considered the submissions provided by Council and the EPA. The Department has also considered the objectives and the relevant considerations under section 4.55 of the EP&A Act. The Department's assessment of the proposed modification concludes the establishment of a site-wide traffic limit and permitting an increase in the throughput of the materials handling facility will:

- not present a risk of harm to the community or the environment
- improve the approach to regulating traffic movements at the site
- permit additional aggregates to be received via rail, reducing the overall impacts on the Sydney road network
- provide the Applicant with more flexibility to increase the throughput at the materials handling facility when CBP volumes are low, and conversely, reduce the handling facility throughput volumes when the CBP volumes are high.

The Department considers the proposed modification is appropriate on the basis that:

- the proposal would result in minimal environmental impacts beyond the approved development
- satisfactory mitigation measures would be put in place to manage potential impacts
- the proposal can be appropriately managed through the existing and modified conditions of consent.

Overall, the Department is satisfied the impacts from the proposed modification can be appropriately managed through the Applicant's proposed management and mitigation measures, the existing conditions of consent and the Department's recommended modified conditions. It is therefore recommended the modification should be approved, subject to conditions.

8 Recommendation

It is recommended that the Director, Industry Assessments, as delegate of the Minister for Planning and Public Spaces:

- **considers** the findings and recommendations of this report
- **determines** that the application, DA 14/96 MOD 12, falls within the scope of section 4.55(1A) of the EP&A Act
- **accepts and adopts** all of the findings and recommendations in this report as the reasons for making the decision to approve the modification
- **agrees** with the key reasons for approval listed in the draft notice of decision
- **modify** the consent DA 14/96
- **signs** the attached approval of the modification (**Appendix A**).

Recommended by:



28 August 2020

Sally Munk
Principal Planner
Industry Assessments

9 Determination

The recommendation is **Adopted** by:

A handwritten signature in black ink, appearing to read 'J. Bakopanos', is written over a faint, light blue rectangular stamp.

28 August 2020

Joanna Bakopanos

A/Director

Industry Assessments

as delegate of the Minister for Planning and Public Spaces

Appendices

Appendix A – Notice of Modification

Appendix B – Modification report

Appendix C – Submissions

Appendix D – Consolidated Consent