



# Boral Construction Materials

## Service Fees Sheet: General

Effective 1st September 2016 - All prices are subject to change without notice.

<b>Item</b>	<b>Description</b>
<b>Extra Cartage</b>	An additional charge of \$1.50 + GST per m <sup>3</sup> per km applies for loads delivered more than 20kms from the nearest Boral plant. A minimum of 3 m <sup>3</sup> applies.
<b>Minimum Load</b>	A fee of \$40 per m <sup>3</sup> + GST applies for loads delivered less than 3 m <sup>3</sup> . Calculated as: Shortfall x per m <sup>3</sup> rate.
<b>Out of hours</b>	The following fees apply for deliveries out of hours. A minimum of 3 m <sup>3</sup> applies*: - Monday – Friday 5.00 pm to 6.00 am: \$30 per m <sup>3</sup> + GST - Saturdays 12.00 pm to 12.00 am: \$60 per m <sup>3</sup> + GST - Sundays & Public holidays: \$90 per m <sup>3</sup> + GST <i>Note: Fee applies at the concrete batch time, not delivered time.</i> * Saturday mornings prior to 6.00 am calculated \$30 per m <sup>3</sup> + GST, Monday mornings prior to 6.00 am calculated at \$90 per m <sup>3</sup> + GST.
<b>Plant Opening</b>	In addition to the out of hour's fee, a plant opening fee of \$1,500 + GST will be applied to open the plant outside normal operating hours. Note: 48 hours notice is required.
<b>Cancellation</b>	A fee of \$1,000 + GST applies when a pour is cancelled after 3.00 pm the day prior.
<b>Waiting Time</b>	Calculated as unloading time per minute > 30 minutes x rate. - Normal hours: \$2.00 per minute + GST - Out of hours: \$4.00 per minute + GST
<b>Credit Card/Debit Card</b>	A 0.8% surcharge applies to all MasterCard and Visa credit and debit card transactions. A 2.7% surcharge applies to all AMEX credit card transactions. A 3.0% surcharge applies to all Diners credit card transactions.
<b>Disposal</b>	Over ordered or surplus concrete can be returned in the delivery vehicle for environmentally responsible disposal if no facility is provided on site. Returned concrete will be charged at \$150 per m <sup>3</sup> + GST or part thereof.
<b>Pump Blowback</b>	A fee of \$300 per load + GST in addition to the disposal fee will be charged for all pump blowbacks. Note: Pump blowback will only be undertaken if safe to do so.
<b>Plant Mixing</b>	A fee of \$50 per load + GST applies where concrete is mixed in a Boral plant and taken away in the customer's vehicle.

Quote conditions and Conditions of Quotation & Supply apply in addition to the above.



# Boral Construction Materials

## Service Fees Sheet: Testing

Effective 1st October 2014 - All prices are subject to change without notice.

The following rates are applicable to concrete sampled, collected and tested during normal hours.

<b>Test Description</b>	<b>Test Method</b>	<b>Price Excl. GST</b>																		
<b>Compression Strength Test</b>	Compression testing includes cast, cure and crush report and slump test. <i>Minimum of 3, 100 x 200 cylinders per test. AS1012 parts 1, 8.1, 9 &amp; 12.1</i>	<b>\$70.00</b> per cylinder																		
<b>Slump Test</b>	Slump tests are provided where no compressive strength cylinders are taken from a sample. <i>Minimum of 6 slump tests per site visit unless combined with a compressive strength test. AS1012 parts 1 &amp; 3.1.</i>	<b>\$30.00</b> per test + Tester hourly rate																		
<b>Drying Shrinkage Test</b>	Cast, cure & measure prisms (up to 56 days). Set of 3 prisms. AS1012 parts 1 & 13.	<b>\$550.00</b> per set																		
<b>Other Tests</b>	<p>Boral Concrete has laboratories located throughout Australia and offer a wide range of testing services, including:</p> <table border="0"> <tr> <td>Spread/Flow</td> <td>Maturity Meter</td> </tr> <tr> <td>Flexural Strength</td> <td>Schmidt Hammer</td> </tr> <tr> <td>Grout Cube Compressive Test</td> <td>Slump Flow Test + J Ring</td> </tr> <tr> <td>Air Content</td> <td>Spread Flow Test + T500</td> </tr> <tr> <td>Field Yield</td> <td>Water Permeability</td> </tr> <tr> <td>Bleeding</td> <td>Fibre Count</td> </tr> <tr> <td>Chloride Diffusion</td> <td>Combined Grading</td> </tr> <tr> <td>Rapid Chloride Permeability</td> <td>Apparent Volume of Permeable Voids</td> </tr> <tr> <td>Thermal Resistivity</td> <td></td> </tr> </table>	Spread/Flow	Maturity Meter	Flexural Strength	Schmidt Hammer	Grout Cube Compressive Test	Slump Flow Test + J Ring	Air Content	Spread Flow Test + T500	Field Yield	Water Permeability	Bleeding	Fibre Count	Chloride Diffusion	Combined Grading	Rapid Chloride Permeability	Apparent Volume of Permeable Voids	Thermal Resistivity		<b>Price on Application</b>
Spread/Flow	Maturity Meter																			
Flexural Strength	Schmidt Hammer																			
Grout Cube Compressive Test	Slump Flow Test + J Ring																			
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Chloride Diffusion	Combined Grading																			
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Thermal Resistivity																				
<b>Testing Fees:</b>																				
<p><b>Tester Hourly Rate:</b> A fee of \$100 per hour + GST or part thereof will be charged when:</p> <ul style="list-style-type: none"> <li>- Tester is on site and not undertaking compressive strength cylinder testing activities</li> <li>- Testers are required to attend a site induction prior to carrying out testing</li> <li>- Travelling time exceeds 0.5 hours</li> </ul>																				
<p><b>Cancellation Fee:</b> A fee of \$500 +GST will be charged when testing is cancelled by the customer within one (1) hour of the scheduled start time.</p>																				
<p><b>On-Site Curing:</b> A fee of \$50 per cylinder + GST will be charged where the Customer requests cylinders be left on site in contradiction to Australian Standards. Note: Boral does not charge extra for testing cylinders that are collected the next working day and air cured at Boral's laboratory.</p>																				
<p><b>Test Report Reissue:</b> A fee of \$50 per report + GST will be charged when a customer requests a report be re-issued.</p>																				
<p><b>Out of Hours Testing Fee:</b> The following fees will apply where concrete is collected and tested between the following hours:</p> <table border="0"> <tr> <td>- Monday – Friday 5.00 pm to 6.00 am:</td> <td>Standard rate x 2</td> </tr> <tr> <td>- Saturdays 12.00 pm to 12.00 am:</td> <td>Standard rate x 2</td> </tr> <tr> <td>- Sundays &amp; Public holidays:</td> <td>Standard rate x 2.5</td> </tr> </table>			- Monday – Friday 5.00 pm to 6.00 am:	Standard rate x 2	- Saturdays 12.00 pm to 12.00 am:	Standard rate x 2	- Sundays & Public holidays:	Standard rate x 2.5												
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- Sundays & Public holidays:	Standard rate x 2.5																			
<p><b>Laboratory Opening Fee:</b> An opening fee of \$318.18 + GST will be charged for opening the laboratory outside of normal hours. Fees are payable regardless and in addition to other testing charges and if cancelled within 24 hours of an agreed opening.</p>																				
<p><b>Boral reserves the right to use appropriately qualified sub-contractors to sample concrete and perform relevant tests in accordance with the testing rates above.</b></p>																				



# CONDITIONS OF QUOTATION & SUPPLY

## 1. DEFINITIONS AND INTERPRETATION

"AS1379-2007" means S.A.A. "Specification and Supply of Concrete" AS 1379-2007 as amended from time to time.

"Australian Consumer Law" means Schedules 1 and 2 of the Competition and Consumer Act 2010 (Cth) and any other relevant provisions contained in that Act. "Client" means the customer named on the quotation, and if no customer is named, the customer to whom the Goods & Work is supplied.

"Company" means Boral Resources (QLD) Pty Ltd. ACN 009 671 809

"Conditions" means these conditions of quotation and any additional matters prescribed on the face of this quotation.

"Consequential Loss" means loss of revenue, loss of profits, loss of anticipated savings or business, loss of data, loss of value of equipment (other than cost of repair), loss of opportunity or expectation loss and any form of consequential, special, indirect, punitive or exemplary loss or damages, however it arises (including as a result of negligence).

"Consumer" has the meaning in the Australian Consumer Law.

"Intellectual Property" all registered and unregistered rights in relation to present and future copyright, trade marks, designs, know-how, patents, confidential information, moral rights and all other intellectual property as defined in article 2 of the Convention establishing the World Intellectual Property Organisation 1967. "Goods & Work" means the materials or the materials and services supplied or to be supplied as described on the face of this quotation.

"Includes" or "including" means includes or including without limitation.

"Loss" means any liability, however it arises (including as a result of negligence) and includes any loss, claim, damage, demand, injury or death and a fine or penalty imposed by a statutory or other authority.

"Rates" means the unit rate shown on the face of this quotation, or otherwise used to calculate the prices in the quotation.

"Service Fees Sheet" means the Company's schedule of additional charges applicable from time to time, which may be attached to this quotation or on request, or at [www.boral.com.au/concrete/termsandconditions](http://www.boral.com.au/concrete/termsandconditions)

"Site" means the location for supply / performance of the Goods & Work specified on the face of this quotation.

## 2. AGREEMENT

Except to the extent otherwise explicitly agreed in writing between the parties, these Conditions (and the credit application completed by the Client (and credit guarantees, if applicable) govern the entire relationship between the Company and the Client in connection with the Goods & Work and will prevail over any other document (including purchase order terms or procurement terms provided by the Client or terms on the back of delivery dockets to the extent inconsistent with these Conditions) from time to time. To the extent of any inconsistency between the credit application, the credit guarantees and these Conditions, these Conditions prevail. The Client acknowledges that it has not relied on any representation, inducement, warranty or promise which is not set out below. The Conditions may only be varied by both parties agreement in writing.

## 3. VALIDITY

This quotation is an offer open to acceptance by the Client within 30 days from the date on the quotation and any such acceptance must be on the basis that supply / performance of the Goods & Work is started within 3 months of the date of the quotation. The offer is made subject to the Client meeting Boral Limited credit approval requirements. The Client's written order to commence the supply / performance of the Goods & Work or such commencement by the Company constitutes acceptance of the offer.

## 4. POINT OF SUPPLY

This quotation is based on all materials being available from the Company's normal point of supply with respect to the locations of the supply / performance of the Goods & Work (as determined by the Company) or as otherwise specified in these Conditions. Should conditions beyond control of the Company necessitate supply from any other point of supply any resultant increase in cost will be paid for by the Client.

## 5. EXTENT OF GOODS & WORK

This quotation is based on supply / performance of all of the Goods & Work at the Site. Should the quantities supplied or location of the Site vary from the quotation the Company reserves the right to adjust the Rate. The Client also acknowledges that the concrete included in the Goods & Work shall generally be supplied in accordance with the relevant sections of AS 1379-2007, unless otherwise stated on the face of this quotation. If the concrete is to be placed by pump, the Client must notify the Company in advance, and while the Company will use reasonable endeavors to accommodate such request, it does not warrant that such concrete will be able to be pumped due to the variations in pumps and the concrete process.

## 6. BASIS OF PAYMENT

The Goods & Work will be paid for by the Client at the Rates according to the actual quantities supplied as shown on the delivery docket, subject to these Conditions. The Client acknowledges that, unless otherwise specifically stated on the face of this quotation or applicable delivery docket, the Rates are subject to additional charges pursuant to the Service Fees Sheet. The Client acknowledges that the Goods & Works will be paid for in full without any retention or set-off.

## 7. LIMITATION OF LIABILITY AND INDEMNITY

If the Client is not a Consumer, the Company shall not be liable in any circumstances:

- for any damage to any property of whatsoever kind situated in, on or adjacent to the Site resulting from Goods & Work supplied or performed in accordance with these Conditions;
  - for any defects in the Goods & Work unless the Client notifies the Company within 14 days of the date of delivery of the materials or the supply of the services specifying the defect, which notice shall be a condition precedent to any right to recover by the Client;
  - for any Loss arising from delay;
  - for any Consequential Loss;
  - for any defect which may develop in any concrete supplied if:
    - water is added to concrete either before or after discharge from the delivery unit without the approval of the Company's representative;
    - an admixture is used at the purchaser's request or specification; or
    - discharge from the agitator occurs more than 90 minutes from the time ex-plant;
  - for any Loss arising from materials supplied by the Company being placed or installed by others,
- and, subject to clause 9, the Company's total aggregate liability in all circumstances is limited (to the extent permitted by law) to the amount paid by the Client for the Goods & Work.

To the maximum extent permitted by law, the Client hereby indemnifies and forever holds harmless the Company from all Losses caused or contributed to by any negligent and / or willful act or omission or any breach of these Conditions by the Client; or by the Company arising from supplying or performing the Goods & Works in accordance with these Conditions.

## 8. LIMITATION OF LIABILITY- AUSTRALIAN CONSUMER LAW GUARANTEES

Unless the Client indicates otherwise below, the Client acknowledges that the Goods & Work it will acquire from the Company will be obtained for either the purpose of re-supply (in an altered form or condition or to be incorporated into other goods) or for the purpose of using them up or transforming them in trade or commerce in the course of a process of production or manufacture or in the course of repairing or treating other goods or fixtures on land.

By ticking this box, the Client notifies the Company that it is acquiring the Goods for a purpose other than that stated immediately above, in which event the provisions below may apply.

If the Client is a Consumer and any of the Goods supplied by the Company are not goods of a kind ordinarily acquired for personal, domestic or household use or consumption, the Client agrees that the Company's liability for a failure to comply with a consumer guarantee under the Australian Consumer Law in relation to those Goods (other than a guarantee under sections 51(title), 52(undisturbed possession) and 53(undisclosed securities)) of the Australian Consumer Law, is limited to, at the option of the Company, one or more of the following:

- the replacement of the Goods or the supply of equivalent goods;
  - the repair of the Goods;
  - the payment of the cost of replacing the Goods or of acquiring equivalent goods; or
  - the payment of the cost of having the Goods repaired.
- If the Client is a Consumer and any of the Work services supplied by the Company are not services of a kind ordinarily acquired for personal, domestic or household use or consumption, the Company's liability for a failure to comply with a consumer guarantee under the Australian Consumer Law in relation to those Work services is limited to, at the option of the Company:
- the supply of the Work services again; or
  - the payment of the cost of having the Work services supplied again.

## 9. SITE ACCESS

The Company will deliver and the Client will receive the Goods & Work at the kerb alignment in a timely manner. The Client will be responsible for providing adequate, and timely access to the Site for the Company's material, personnel and equipment and the Client will indemnify the Company for all Loss (including delay and establishment costs) incurred by the Company as a result of failure to provide such access. If the Company or its agents enter the Site for the purposes of delivering the Goods, the Client shall indemnify the Company for any Loss incurred by the Company arising out of or in connection with such. Where the Company leaves equipment on the Site in connection with the supply / performance of the Goods & Works, the Client shall take all reasonable precautions to secure the Site to prevent loss or damage to the equipment or any injury to persons entering upon the Site.

## 10. DELIVERY

The Company will use reasonable endeavors to supply/execute Goods & Work in accordance with the Client's schedule. However, should supply / execution of the Goods & Works be early or delayed for any reason beyond the control of the Company or as a result of any cause which the Client is or should reasonably be aware of all Loss arising will be the Client's responsibility and the Client shall indemnify the Company in respect of such Loss.

Prior to discharge from the delivery vehicle the Client shall check that the Goods & Work description and quantity on the delivery docket conforms with its requirements, and the Client must record any discrepancies in writing on the delivery docket including discrepancies in quantity, specification, discharge records, or that the addition of water was done other than at the Customer's request. Failure to make such notations on the copy of the docket retained by the Company is deemed to be conclusive evidence that the delivery docket is accurate, the Client accepts the Goods and Work, and that any water added was done at the Client's request.

## 11. SITE VISITS & HOURS

Unless otherwise stated on the face of this quotation, this quotation is based on

- the whole of the Goods & Work being available for completion at one Site visit.
- the whole of the supply / performance of the Goods & Work being conducted during normal hours. Should it be necessary to supply / perform the Goods & Works or any necessary establishment work on a Saturday, Sunday or public holiday, then additional charges will apply which will be calculated in accordance with the variations clause. The Company's normal hours of business for loading are listed on the Company's Service Fees Sheet.

## 12. VARIATIONS

The Company is not obliged to carry out any variation which is outside the scope of the Goods & Works. Any variation that the Company does carry out shall be subject to these Conditions and shall be charged to and paid for by the Client at an agreed rate or failing agreement at the rate determined by the Company.

## 13. TAX INVOICES

The Client acknowledges that Boral Construction Materials Group Limited (ABN 15 000 028 080) has been appointed as agent for the purpose of invoicing and receiving revenue on the Company's behalf. The Client agrees to pay the amount shown on invoices issued by Boral Construction Materials Group Limited.

## 14. TERMS OF PAYMENT

The Client must pay for the Goods & Work in immediately available funds prior to the discharge of the concrete unless the Company agrees otherwise in writing.

## 15. TAXES & OTHER CHARGES

- The prices quoted do not include any statutory or Government charges. Should any such charges or any other tax become applicable to the materials the subject of this quotation such tax or charge shall be charged to and paid for by the Client in addition to the price otherwise payable under this quotation.
- Notwithstanding anything else in these Conditions, if the Company has any liability to pay the Goods and Services Tax ("GST") on any materials and / or services supplied herein to the Client, the Client shall pay to the Company the amount of such GST at the same time as amounts otherwise payable to the Company.
- If the introduction of a regime relating to the emission, removal, mitigation, reduction, avoidance or sequestration of greenhouse gases (Carbon Scheme) results in any additional financial burden whatsoever to the Company arising from the manufacture or supply the Goods & Work, the Company may increase Rates to recover the reasonable net costs incurred arising from such Carbon Scheme.

## 16. FORCE MAJEURE

The Company shall not be liable in any way for any delay in the supply / performance of Goods & Works where such delay occurs by reason of any cause whatsoever beyond the reasonable control of the Company, including without limiting the generality thereof, restrictions of Government or other statutory authorities, wars, fires, epidemics, failure or fluctuation in any electrical power supply, storm, flood, earthquake, accident, labour dispute, plant breakdown,

materials or labour shortage, the change or introduction of any law or regulation or an act or omission of any supplier or other third party or any failure of any equipment owned or operated by them.

## 17. MAINTENANCE

This quotation does not cover any maintenance after completion of the supply / performance of the Goods & Works.

## 18. TESTING

The Company will, at Client's request, use reasonable endeavors to arrange testing priced in accordance with the Service Fees Sheet. Any testing conducted or arranged by the Client will be by sampling at the discharge chute performed in accordance with AS 1012 and carried out by a NATA accredited laboratory. The Client will provide the Company with copies of any such third party testing conducted.

## 19. INFORMATION & IP

(a) The Client acknowledges and agrees that:

- the Client must provide all relevant information (including all specifications relating to the Goods & Works, details relating to the Site, and other matters that may affect the Company's ability to complete the Goods & Works) to the Company to enable the Company to supply / perform the Goods & Works; and
  - the Company in giving this quotation has relied upon the accuracy and completeness of such information, and the Client hereby warrants to the Company the accuracy and completeness of all information supplied.
- (b) If the Company has provided the Client with any information (including any design services or other advice) in connection with the Goods & Works, the Client acknowledges that it has formed its own opinion as to the correctness or otherwise of the information and has not and will not rely on the Company in respect of such information.
- (c) All Intellectual Property of the Company, including any developed during the course of supply / performance of the Goods & Work, shall remain the sole property of the Company and no license, right or other interest of any kind in respect of such Intellectual Property is granted, created or transferred to the Client.

## 20. RISK

Upon delivery of any Goods & Work to the Site or any temporary stockpiles, all risk in relation to such shall pass to the Client. Property in the Goods & Work shall not pass to the Client until the Company has been paid in full. Where Goods are sold ex-bin, risk passes to the Client when the material is loaded on the Client's vehicle.

## 21. SAFETY

- The Client is responsible for ensuring safe and adequate access to the Site for delivery and all other aspects of Site safety.
- The Client shall notify the Company prior to delivery, of any obstacles or peculiarities in relation to the Site including whether the Site or its approach has a gradient greater than 8%.
- The driver making any delivery may refuse to complete the delivery, if not satisfied with the Client's compliance with (a) and (b) above, however, making a delivery shall not constitute an assessment of the safety of the Site and in no way relieves the Client of its obligations under these Conditions, including those relating to safety.
- The Client acknowledges that freshly mixed cement, mortar, concrete or grout may cause skin irritation. The Client shall ensure that all personnel involved in the Goods & Work avoid contact with exposed skin areas and eyes and wear appropriate protection such as impervious clothing, safety goggles and gloves. The following are general guidelines relating to exposure, and should not be treated as exhaustive. The Client acknowledges that it has appraised itself of these risks and that it will take appropriate safety precautions and training of its personnel. Should exposure occur, immediately rinse eyes and wash affected skin areas with clean fresh running water for 10 minutes. Seek medical advice if symptoms persist. Avoid breathing dust generated from drilling, sawing or chiseling hardened concrete or quarry products as it may contain crystalline silica. Wear appropriate protective clothing, gloves, safety goggles and particulate respirator. Should exposure occur immediately rinse eyes with fresh clean running water for a minimum of 10 minutes. If dust is inhaled, immediately remove to fresh air. Seek medical advice should inhalation occur or if symptoms persist. Contact Boral for more information and a Material Safety Data Sheet or to view go to [www.boral.com.au/product\\_index/material\\_safety\\_data\\_sheets.asp](http://www.boral.com.au/product_index/material_safety_data_sheets.asp)

## 22. GENERAL

**(Severance)** Any provision of these Conditions which is unenforceable or partly unenforceable is, where possible, to be read down so as to be enforceable, and if it can not be read down, severed to the extent necessary to make these Conditions enforceable, unless this would materially change the intended effect of these Conditions.

**(Waiver)** A right may only be waived in writing, signed by the party giving the waiver, and no other conduct of a party (including a failure to exercise, or delay in exercising, the right) operates as a waiver of the right or otherwise prevents the exercise of the right.

**(No Implied terms)** The Client may have the benefit of certain statutory guarantees relating to the Goods & Work services pursuant to the *Competition and Consumer Act 2010* (Cth). Otherwise, to the maximum extent permitted by law, all terms, conditions or warranties that would be implied into these Conditions or in connection with the supply of the Goods & Work by law, statute, custom or international convention (including those relating to quality or fitness for purpose) are excluded.

**(Governing law)** These Conditions are governed by the laws of the State or Territory in which the Goods & Work is supplied / performed. If Goods & Work are supplied / performed outside Australia, the Conditions are governed by the laws of Queensland. The parties submit to the non-exclusive jurisdiction of the courts of that State or Territory and any courts which may hear appeals from those courts.

**(Insurance)** The Client must take out and maintain those policies of insurance that would be held by a reasonably prudent customer in the position of the Client. **(No Adverse Interpretation)** These Conditions are not to be interpreted against the interests of a party merely because that party proposed this document or some provision in it or because that party relies on a provision of these Conditions to protect itself.

# Concrete Delivery Requirements

At Boral we regard the safety and welfare of our people as our most important responsibility. We are committed to operating our businesses in a manner which ensures that our employees, contractors, visitors and the communities in which we operate are free from harm.

In seeking to meet our zero harm today goal, Boral is committed to ensuring the safe delivery of our products and would like to formally draw your attention to our specific Concrete Delivery requirements set out below:

## Traffic Management, Environmental

### Traffic management

Our Drivers	Our requirements – for Customer planning
Must be satisfied that they have a safe & legal area for the truck to park & discharge the load.	<b>Authorised traffic control is to be in place if:</b> (i) the truck has to face oncoming traffic while discharging. (ii) the driver has to discharge the load on a main road or is in a hazardous position (e.g Bend or over the crest of a hill). In this case, barriers & witches hats are required.
	<b>Safe &amp; legal access for pedestrians:</b> (i) The customer must ensure that when the footpath is crossed or blocked by the trucks discharging that there is safe & legal access for pedestrians.
	<b>A spotter available</b> at all times to guide the truck into position for discharge. (i) Customers will need to ensure that the spotter is <b>wearing Hi-Vis clothing</b> , is at a safe distance from the truck and is visible to the driver at all times.

### Environmental

Our Drivers	Our requirements – for Customer planning
Have the right to refuse to enter any site if they believe that the truck will illegally drag contaminates offsite onto a public road upon their departure.	<b>Cleaning facilities:</b> Customers to provide a wheel wash, pressure washer or other means of cleaning wheels and a area to clean any contaminates from the truck before the truck leaves the site.
Are not to wash onto street where contaminates could enter storm water drains.	<b>Wash down of chutes:</b> customer to provide a skip or alternative.

### Powerlines

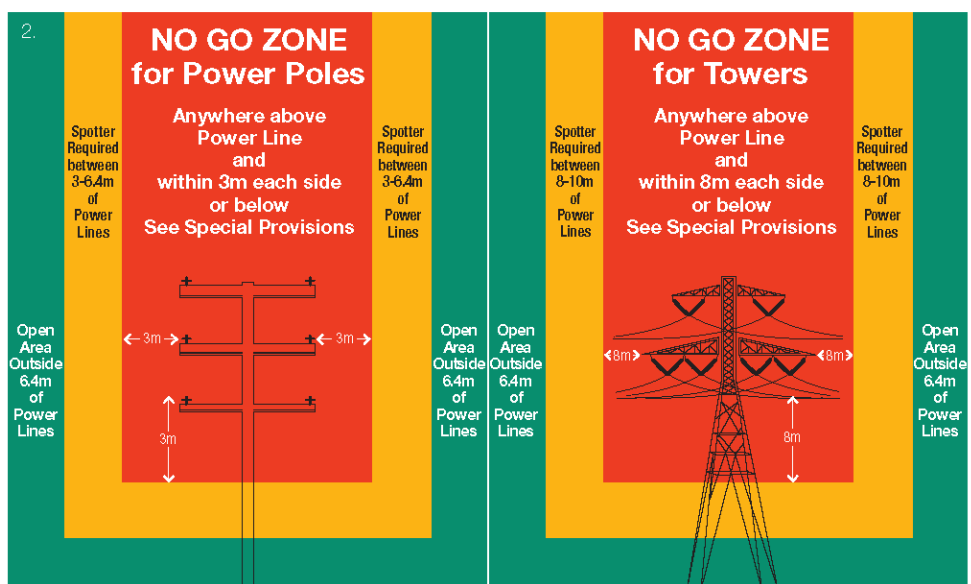
#### Approach distances or work performed by ordinary persons<sup>1</sup>

Phase to phase a.c. voltage (volts)	Approach distance (metres)
Up to 33,000 volts *	0.9
33,000 to 132,000	3.0
132,000 to 330, 000	6.0
Above 333,000	8.0

\***Note:** the 0.9 separation distance relates to the following activities:

- Vehicles driving under power lines
- Trucks discharging while parked under power lines
- Vehicles and personnel under power lines that connect a domestic house to the power lines.

The separation distance increases to a minimum 3m for all other activities



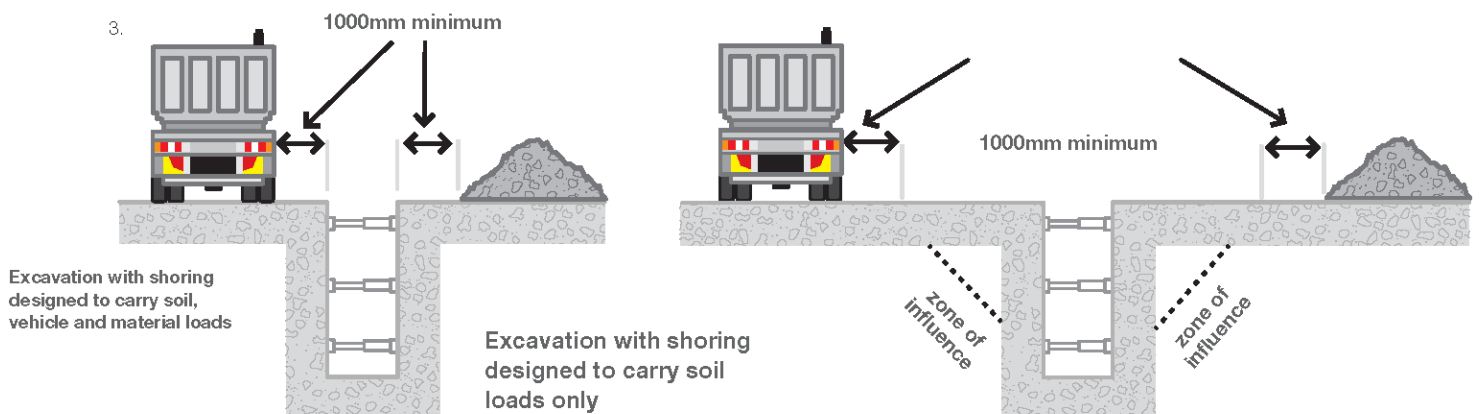
Source:  
 1] Work Cover New South Wales - Work Near Overhead Power Lines Code of Practice 2006.  
 2] www.worksafe.vic.gov.au/\_data/assets/pdf\_file/0014/21704/nz\_overhead\_power\_lines.pdf

## Cranes, kibbles and booms

Our Drivers	Our requirements – for Customer planning
Must comply to all PPE requirements and ensure that Kibble is not overfilled.	<b>Dogman or Spotter –</b> Our Drivers must not be used as a dogman or spotter.
Are not to wash onto street where contaminates could enter storm water drains.	<b>Loading Kibble -</b> (i) Customer to ensure truck driver is directed into position for discharging loads. (ii) The loading area must be clearly defined and kept free of obstructions and trip hazards.
	<b>Slewing kibbles –</b> Slewing of mobile cranes or booms cannot pass over truck - Kibble is to be raised above Agitator height and slewed away from personnel.

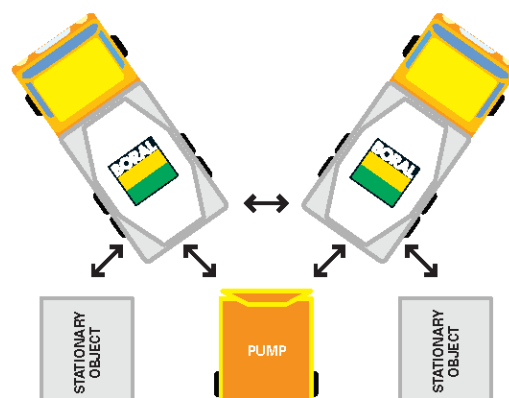
## Open trenches & ramps

Our requirements – for Customer planning
<p><b>The minimum width for access road should be 3 metres clear of any building materials or debris:</b></p> <p>(i) The customer should consider extra width if there are any turns on the access road.</p>
<p><b>The minimum distance any part of our truck must stay away from an open trench is the depth of the trench plus 1 metre.</b></p> <p>This means for example:</p> <p>(i) If the trench depth is 500mm deep the truck must stay 1500mm away.</p> <p>(ii) If the trench depth is 1 metre deep the truck must stay 2 metres away.</p> <p>(iii) If the trench depth is 1.5 metres deep the truck must stay 2.5 metres away.</p>



## Pumping

Our Drivers	Our requirements – for Customer planning
Must stand well clear of pump lines and couplings where practicable.	<p><b>The concrete pumping area should be:</b></p> <p>(i) reasonably level, solid and free of obstructions, with careful attention paid to positioning of the pumping equipment and any stabilising devices.</p> <p>(ii) clear of excavations, trenches or holes in the ground.</p> <p>(iii) clear of inadequately compacted or soft ground.</p> <p>(iv) clear of cellars, basements, pits or back-filled ground, to allow for the safe discharge of the concrete delivery trucks.</p>
<p>Must wear all required personal protective equipment:</p> <ol style="list-style-type: none"> <li>1. Safety Helmet</li> <li>2. Safety glasses</li> <li>3. Ear plug/muffs</li> <li>4. Hi-Visibility vest or shirt</li> <li>5. Work gloves</li> <li>6. Steel capped boots</li> </ol>	<p><b>The emergency stop should be visible to the driver and operational crew.</b></p> <p>We also require there to be a <b>600mm</b> clearance between two trucks simultaneously feeding into pump hopper as demonstrated in the diagram below.</p>



**NO ONE SHOULD EVER BE ALLOWED OR ABLE TO STAND BETWEEN A REVERSING TRUCK AND THE PUMP OR OTHER NEARBY STATIONARY OBJECT**

Source:

[3] Safework Australia publication July 2012 - Excavation work code of Practice

[4] Cement Concrete & Aggregates Australia - Concrete Pump Delivery Industry Guidelines - page 13 - [http://www.ccaa.com.au/tmis\\_prod/documents/CCAA\\_Concrete\\_Pump\\_Delivery.pdf](http://www.ccaa.com.au/tmis_prod/documents/CCAA_Concrete_Pump_Delivery.pdf)

## Pumping cont....

Must never reverse without a spotter in place.	A spotter to assist reversing trucks must be provided by the contractor or pump operator.
	We require the provision of a safe location for the spotter, pump operator and truck drivers to prevent them from being caught between the reversing truck and the pump hopper, other trucks or stationary objects.
Must never stand on the pump truck or straddle between the concrete truck and the pump truck.	Our customer must ensure they have a competent person reversing trucks onto the receiving hopper at all times. The primary chute on concrete trucks should only be moved when the truck is stationary. It is preferable for the truck driver to perform this task. If another worker performs this task then the permission of the driver should be obtained.
	The concrete receiving hopper should be at a height that allows a gravity flow of concrete into the hopper.
	The pump must be fitted with a secure hopper grate constructed of parallel bars. A grill must be provided to prevent access to dangerous moving parts such as feed or agitator mechanisms and valve gear.

- No one should ever be allowed or able to stand between a reversing truck and the pump or other nearby stationary objects.
- An emergency stop must be located within easy reach of the concrete truck driver.
- Safety pins are to be fitted to all couplings and clamps.
- The boom should not be rotated over trucks or drivers.
- The delivery hose is to be secured by a safety chain, webbing or cable.
- Earth straps to be fitted when working near power lines (in accordance with AS 2550).

## Blowback – important advice notification

- Blowback into a concrete truck can only occur if;
  1. a risk based process has been documented, and
  2. approval has been given by Boral.
- Allowing concrete to be blown back into the agitator barrel is an inherently dangerous procedure unless it is carefully controlled. Air pressure can cause anything inside the pipeline to act as a high velocity projectile.
- Blowback must occur via a well secured fixed line to prevent “whipping”. The steel pipe must extend 600 mm inwards beyond the barrel drip ring.
- Appropriate work platforms must be provided to fit the blowback line.
- The pump operator is responsible for fitting the line.
- The driver is to be positioned forward of the pump truck cabin.

## Road surfaces and gradients

- Forward road gradients are not to exceed 1 metre high for every 10 metres in length (1:10).
- Cross slopes are not to exceed 1 metre high for every 10 metres in width (1:10).
- The road surface are to be compacted (or able) to sustain;
  - 23 tonnes (6 wheeler concrete truck)
  - 28 tonnes (8 wheeler concrete truck)
  - 32 tonnes (10 wheeler concrete truck)
- Self draining (free from pooled water).
- One way roads are to be 1.5 times the width of the concrete truck with passing bays (a minimum of 16 metre in length and 4 metres wide).
- Two way roads are to be 2.5 times the width of the concrete truck.

**Note:** Contact your Boral Account Manager in the event you would like to discuss these requirements further.

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