

CLAYTON UTZ

## M2 Motorway: Lane Cove Road On-Ramp Amending Deed

The Minister for Roads and Ports for and on behalf of Her Majesty Queen  
Elizabeth the Second in right of the State of New South Wales  
Minister

Roads and Maritime Services  
RMS

The Hills Motorway Limited  
Company

Hills Motorway Management Limited  
Trustee

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Our reference 2652/14606/80129718

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**Parties**                    **The Minister for Roads and Ports** for and on behalf of Her Majesty Queen Elizabeth the Second in right of the State of New South Wales (the **Minister**)

**Roads and Maritime Services ABN 76 236 371 088** of 101 Miller Street, North Sydney, New South Wales 2060 (**RMS**)

**The Hills Motorway Limited ABN 28 062 329 828** of Level 3, 505 Little Collins Street, Melbourne Victoria 3000 (**Company**) and **Hills Motorway Management Limited ABN 89 064 687 645** as trustee of the Hills Motorway Trust of Level 3, 505 Little Collins Street, Melbourne Victoria 3000 (**Trustee**) (together **Hills Motorway**)

**Background**

- A.        Roads and Traffic Authority of New South Wales (**RTA**), the Minister for Roads, the Company and Perpetual Trustees Australia Limited entered into the M2 Motorway Project Deed on or about 26 August 1994 for the financing, planning, design, construction, commissioning, ownership, operation, maintenance and repair of the M2 Motorway.
- B.        The parties subsequently entered into the Upgrade Project Deed on 25 October 2010 in respect of the widening upgrade of the M2 Motorway.
- C.        In November 2009, Hills Motorway submitted an unsolicited proposal to RTA for the construction of a new on-ramp from the southbound carriageway of Lane Cove Road to the eastern carriageway of the M2 Motorway and certain associated works.
- D.        Pursuant to the *Transport Legislation Amendment Act 2011* (NSW), RTA was abolished, and RMS became party to the M2 Motorway Project Deed and the Upgrade Project Deed, on 1 November 2011.
- E.        The parties wish to amend the M2 Motorway Project Deed and the Upgrade Project Deed in the manner set out in this deed to enable Hills Motorway to carry out Stage 3A and otherwise implement Hills Motorway's Proposal.

**Operative provisions**

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**1. Definitions and interpretation**

**1.1 Definitions**

In this deed, the following capitalised terms will have the meaning set out below:

**Conditions Precedent** means the conditions precedent in clause 2.1 of this deed.

**Director-General** means the Director-General of the Department of Planning and Infrastructure.

**Effective Date** means each of the First Effective Date and the Second Effective Date.

**ESD First Amending Deed** means the deed entitled "Equity Subscription Deed: First Amending Deed" entered into by the Trustee (in its capacity as trustee of the Hills Motorway Trust), the Company, Transurban Holdings, the Security Trustee, the Transurban Holding Trustee and RMS dated on or about the date of this deed.

**First Effective Date** means the date on which the Conditions Precedent have been satisfied or waived in accordance with this deed.

**Hills Motorway's Proposal** means the unsolicited proposal received by RMS on or about 6 November 2009 from Hills Motorway for the construction of Stage 3A.

**LCR Base Case Financial Model** means the file entitled "[20130319] LCR BCFM.xlsm" dated 21 March 2013 with a size of 9,014,272 bytes.

**M2 Motorway Project Deed** means the deed entitled "M2 Motorway Project Deed" dated 26 August 1994 originally between the then Roads and Traffic Authority of New South Wales, the then Minister for Transport and Minister for Roads, the Honourable Bruce G Baird, the Company and Perpetual Trustees Australia Limited and now between the parties to this deed, as amended.

**On-Ramp D&C Contract** means the deed entitled "Lane Cove Road Ramp Design and Construction Deed" entered into between Hills Motorway and the On-Ramp D&C Contractor on or about the date of this deed.

**On-Ramp D&C Contractor** means Fulton Hogan Construction Pty Ltd ABN 46 010 240 758.

**On-Ramp D&C Contractor Guarantor** means Fulton Hogan Australia Pty Ltd ABN 42 135 849 115.

**On-Ramp D&C Side Deed** means the deed entitled "On-Ramp D&C Side Deed" entered into between RMS, Hills Motorway, the On Ramp D&C Contractor and the On-Ramp D&C Guarantor on or about the date of this deed.

**PAFA Guarantee** means the guarantee made pursuant to section 22B of the *Public Authorities (Financial Arrangements) Act 1987* (NSW) dated 26 August 1994 and restated on 16 November 2010.

**Planning Approval** means the approval for Stage 3A obtained as a modification to the Project Approval pursuant to section 75W of the EP&A Act and dated 28 February 2013.

**Planning Application** means all documents required to be submitted to the Department of Planning and Infrastructure under section 75W of the EP&A Act in order to obtain the Planning Approval.

**Second Effective Date** means the Date of Construction Completion of Stage 3A.

**Stage 3A** has the meaning given to that term in paragraph 25(s) of Schedule 1.

**Subordinated Debt Consent Letter** means the letter from Hills Motorway to RMS titled "M2 Motorway funding - refinancing consent" dated on or about the date of this deed in the form acknowledged and agreed by RMS and the Minister.

**Treasurer** means the Treasurer of New South Wales.

**Upgrade Project Deed** means the deed entitled 'M2 Motorway Upgrade Project Deed' dated 25 October 2010 between the Parties, as amended.

## 1.2 Incorporation of defined terms

Subject to clause 1.1 and unless the contrary intention applies, a word or phrase defined in the Upgrade Project Deed has the same meaning in this deed.

## 1.3 Interpretation

In this deed unless the context indicates a contrary intention:

- (a) the expression person includes an individual, body politic, a corporation, a statutory or other authority, an association or joint venture (whether incorporated or unincorporated), a partnership and a trust;
- (b) the expressions including, includes and include have the meaning as if followed by without limitation;
- (c) a reference to any party includes that party's executors, administrators, successors, and permitted substitutes and assigns, including any person taking by way of novation;
- (d) a reference to any Authority, institute, association or body is:
  - (i) if that Authority, institute, association or body is reconstituted, renamed or replaced or if the powers or functions of that Authority, institute, association or body are transferred to another organisation, deemed to refer to the reconstituted, renamed or replaced organisation or to the organisation to which the powers or functions are transferred, as the case may be; and
  - (ii) if that Authority, institute, association or body ceases to exist, deemed to refer to that organisation which serves substantially the same purpose or object as that Authority, institute, association or body;
- (e) a reference to this deed or to any other deed, agreement, document or instrument includes, respectively, this deed or such other deed, agreement, document or instrument as amended, novated, supplemented, varied or replaced from time to time;
- (f) a reference to any legislation or to any section or provision of it includes any statutory modification or re-enactment or any statutory provision substituted for it and all ordinances, by-laws, regulations, rules and other statutory instruments (however described) issued under it;
- (g) words importing the singular include the plural (and vice versa) and words denoting a given gender include all other genders;
- (h) headings are for convenience only and do not affect the interpretation of this deed;
- (i) unless a contrary intention applies, a reference to a clause, Schedule, Annexure or Exhibit is a reference to a clause, Schedule, Annexure or Exhibit of or to this deed;
- (j) a reference to this deed or any other Project Document includes all schedules, annexures or exhibits to this deed or the Project Document;

- (k) where any word or phrase is given a defined meaning any other part of speech or other grammatical form in respect of such word or phrase has a corresponding meaning;
- (l) a reference to a court or tribunal is to an Australian court or tribunal;
- (m) a reference to a day, month or year is a reference to a calendar day, a calendar month or a calendar year respectively;
- (n) a reference to \$ or dollar is to Australian currency; and
- (o) a reference to any thing is a reference to the whole or any part of it and a reference to a group of persons is a reference to all of them collectively, to any 2 or more of them collectively and to each of them individually.

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## **2. Conditions Precedent**

### **2.1 Conditions Precedent**

The rights and obligations of the parties under this deed are dependent on and will not take effect until:

- (a) National Australia Bank Limited (as Agent under the RTA Consent Deed) has consented under clause 9.1 of the RTA Consent Deed to the modifications, variations and amendments to the M2 Motorway Project Deed and the Upgrade Project Deed set out in this deed;
- (b) the LCR Base Case Financial Model has been agreed and audited by an independent auditor acceptable to RMS;
- (c) all parties to:
  - (i) the On-Ramp D&C Contract;
  - (ii) the Subordinated Debt Consent Letter; and
  - (iii) the On-Ramp D&C Side Deed,have executed those documents;
- (d) the Treasurer has approved in writing the following documents becoming 'Relevant Transaction Documents' for the purposes of the PAFA Guarantee:
  - (i) the On-Ramp D&C Side Deed; and
  - (ii) this deed.
- (e) all parties to the ESD First Amending Deed have executed that document and all conditions precedent to the ESD First Amending Deed (other than any condition precedent that requires the satisfaction or waiver of the conditions precedent to this deed) have been satisfied or waived.

## 2.2 Best endeavours

The Company and the Trustee must each use their best endeavours to ensure, and assist the other to ensure, that the Condition Precedent is satisfied as soon as practicable after the date of this deed.

## 2.3 Waiver

The Condition Precedent may only be waived by agreement in writing between RMS, the Company and the Trustee.

## 2.4 Notice

Each party must promptly:

- (a) notify the other parties when it learns that the Condition Precedent is satisfied or that it cannot be satisfied; and
- (b) keep the other parties reasonably informed of any developments relevant to the satisfaction, waiver or otherwise of the Condition Precedent.

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## 3. Planning Approval

Hills Motorway acknowledges and agrees:

- (a) that:
  - (i) RMS's Representative will not be deemed to have given Hills Motorway a Change Order; and
  - (ii) Hills Motorway will not be entitled to any compensation or relief from its obligations, under clause 4.2(b) of Annexure A to the Upgrade Project Deed in connection with the grant of the Planning Approval;
- (b) that:
  - (i) clauses 4.2(b), 4.3(b) and 17 of Annexure A to the Upgrade Project Deed; and
  - (ii) clause 2.1(c)(iii) of the M2 Motorway Project Deed, will not apply under, and Hills Motorway will not be entitled to any compensation or relief from its obligations under, clause 5.4(b) of the M2 Motorway Project Deed in connection with the grant of the Planning Approval;
- (c) that Hills Motorway will, within 20 Business Days after the On-Ramp D&C Contract being executed and becoming unconditional, provide a "Subsidiary D&C (On-Ramp) Program" to RMS which:
  - (i) meet the requirements of clause 5.11(b) of Annexure A to the Upgrade Project Deed; and
  - (ii) relates solely to the design and construction activities (including procurement of goods and materials) for Stage 3A; and

- (d) that Hills Motorway will, within 20 Business Days after the On-Ramp D&C Contract being executed and becoming unconditional, provide Project Plans to RMS which:
  - (i) meet the requirements of clauses 5.12(b) and (c) of Annexure A to the Upgrade Project Deed;
  - (ii) relate solely to Stage 3A; and
  - (iii) which take into account the grant of the Planning Approval.

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## **4. Amendments**

### **4.1 Amendments**

- (a) With effect from the First Effective Date, the Upgrade Project Deed and the M2 Motorway Project Deed are amended as set out in Schedule 1.
- (b) With effect from the Second Effective Date, the Upgrade Project Deed and the M2 Motorway Project Deed are amended as set out in Schedule 2.
- (c) Each party consents and agrees to the amendment of the Upgrade Project Deed and the M2 Motorway Project Deed in the manner set out in this clause 4.1.

### **4.2 Amendments not to affect validity, rights, obligations**

The amendments to the Upgrade Project Deed and the M2 Motorway Project Deed do not affect the validity or enforceability of those documents.

### **4.3 References**

On and with effect from the relevant Effective Date, any reference to the Upgrade Project Deed or the M2 Motorway Project Deed is a reference to that document as amended on that Effective Date pursuant to this deed.

### **4.4 Confirmation**

On and with effect from the relevant Effective Date, each Party is bound by the Upgrade Project Deed and the M2 Motorway Project Deed as amended on that Effective Date by this deed.

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## **5. General**

### **5.1 Governing law and jurisdiction**

- (a) This deed is governed by the laws of New South Wales.
- (b) Each party irrevocably submits to the jurisdiction of the courts of New South Wales and the courts competent to determine appeals from those courts, with respect to any proceedings which may be brought at any time relating in any way to this deed.



## **5.2 Further action**

Each party must do all things and execute all further documents necessary to give full effect to this deed.

## **5.3 Counterparts**

This deed may be executed in any number of counterparts and each counterpart constitutes the agreement of each party who has executed and delivered that counterpart.

## **5.4 Costs and expenses**

Each of the Company and the Trustee must pay:

- (a) its own costs and expenses in connection with Hills Motorway's Proposal; and
- (b) the costs reasonably incurred by RMS in assessing Hills Motorway's Proposal (which includes, for the avoidance of doubt, the development, design, assessment and documentation of Hills Motorway's Proposal and the negotiation, preparation and execution of this deed and the On-Ramp D&C Side Deed).

## Schedule 1 - Amendments upon the First Effective Date

With effect from the First Effective Date:

1. Recital G(b) of the Upgrade Project Deed is deleted and replaced with the following recital:

*"(b) Hills Motorway may achieve Final Completion and Construction Completion of Stage 4A.";*

2. Clause 1.1 of the Upgrade Project Deed is amended by deleting the definitions of "D&C Contract", "Early Termination Amount" and "Termination Notice" and inserting the following definitions in the appropriate alphabetical order:

*"**Commercially Sensitive Information** means:*

- (a) any information relating to any financing arrangement under the M2 Upgrade Debt Financing Documents or the Equity Subscription Deed;*
- (b) any information relating to the Company or Trustee's cost structure or profit margins;*
- (c) any information relating to any of Hills Motorway's Proprietary Documentation; and*
- (d) any information which is commercially sensitive in that it provides a competitive advantage or has a unique characteristic to Hills Motorway or to Hills Motorway's shareholders, financiers or Subcontractors,*

*which, in respect of the information contained in the Project Documents, is the information described in Schedule 8."*

*"**Completion Action** means actions taken with a view to achieve Construction Completion of Stage 3A or Construction Completion of Stage 4A."*

*"**Early Termination Amount** on any date:*

- (a) is the total of:*
  - (i) the M2 Upgrade Project Debt on that date;*
  - (ii) an amount sufficient to give the Company and the Trustee in aggregate the ability to give the M2 Upgrade Equity Investors (treated as if those M2 Upgrade Equity Investors were all Notional Initial M2 Upgrade Equity Investors) a nominal after tax internal rate of return (which, for the avoidance of doubt, excludes any tax paid or payable by the M2 Upgrade Equity Investors) to that date equal to the M2 Upgrade Equity Return (having regard to amounts the Company and the Trustee have previously paid and received and the amounts that the Company and the Trustee must, subject to clause 8.8(f) of Annexure A, pay as a consequence of the termination, including to their respective contractors excluding however any amount payable to the Contractor which relates to any amount payable by the Contractor to any Related Entity of the Contractor other than where the Related Entity is engaged on an arm's length basis and on commercial terms);*

- (iii) *prior to the Subordinated Debt Refinance Date only, the M2 Upgrade LCR Subordinated Debt on that date; and*
  - (iv) *an amount sufficient to give the Company and the Trustee in aggregate the ability to give the LCR Equity Investors (treated as if those LCR Equity Investors were all Notional Initial LCR Equity Investors) a nominal after tax internal rate of return (which, for the avoidance of doubt, excludes any tax paid or payable by the LCR Equity Investors) to that date equal to the LCR Equity Return (having regard to amounts the Company and the Trustee have previously paid and received and the amounts that the Company and the Trustee must, subject to clause 8.8(f) of Annexure A, pay as a consequence of the termination, including to their respective contractors excluding however any amount payable to the Contractor which relates to any amount payable by the Contractor to any Related Entity of the Contractor other than where the Related Entity is engaged on an arm's length basis and on commercial terms); and*
- (b) *does not include any interest on the M2 Upgrade Project Debt or M2 Upgrade LCR Subordinated Debt to the extent that it is calculated at a rate which would constitute a penalty."*

**"Emergency Action** means, in connection with a failure by Hills Motorway to perform an obligation in respect of Stage 3A or Stage 4A:

- (a) *action that is reasonably necessary to minimise risk to the health and safety of persons, the Environment, the M2 Upgrade, any property or the safe and secure performance of Hills Motorway's Work; and*
- (b) *any ancillary works carried out by RMS in connection with any action referred to in paragraph (a) (including, without limitation, rectification, repair and landscaping works carried out by RMS in connection with any action referred to in paragraph (a))."*

**"Financier Subordinated Debt Consent Letter** means the letter from National Australia Bank to Hills Motorway Management Limited and RMS titled "**M2 Motorway - consent to Lane Cove Road On-ramp**" dated 2 May 2013."

**"Free Cash Flow** means such funds which would be permitted to be distributed in accordance with clause 10.4 of the Amended and Restated Terms of Project Funding Deed."

**"GIPA Act** means the Government Information (Public Access) Act 2009 (NSW)."

**"Hills Stage 3A Reinstatement Plan** has the meaning given in clause 2.6A(c)."

**"LCOR Effective Date** has the meaning given for the term "First Effective Date" in the On-Ramp Amending Deed."

**"Reinstatement Action** means the works set out in either a Hills Stage 3A Reinstatement Plan or an RMS Stage 3A Reinstatement Plan."

**"RMS Stage 3A Reinstatement Plan** has the meaning given in clause 2.6A(c)(ii)."

**"Stage 3A Reinstatement Criteria** has the meaning given in clause 2.6A(b)."

*"Stage 3A Reinstatement Plan means a Hills Stage 3A Reinstatement Plan or an RMS Stage 3A Reinstatement Plan."*

*"Subordinated Debt Consent Letter means the letter from Hills Motorway to RMS titled "M2 Motorway funding - refinancing consent" dated on or about the date of the On-Ramp Amending Deed in the form acknowledged and agreed by RMS and the Minister."*

*"Subordinated Debt Refinance Date means 18 November 2014."*

*"Termination Notice means a notice given under clause 9.3(a)(iii)(B)."*

*"Termination Notice (Stage 3A and Stage 4A) means a notice given under clause 9.3(a)(iv)(B)."*

3. Clause 1.3(d) of the Upgrade Project Deed is amended by inserting the word "to" immediately after the word "reference";
4. Clause 2.6 of the Upgrade Project Deed is deleted and replaced with the following clause:

**"2.6 RMS action**

(a) If:

- (i) Hills Motorway fails to perform an obligation under this Deed; and
- (ii) Hills Motorway has not, within a reasonable time after the date of receipt of a written notice from RMS requiring such failure to be remedied, taken steps to remedy the failure, or having taken such steps, fails to remedy the failure within a reasonable time,

*then subject to clauses 2.6(b) and 2.6(c), RMS may take such action as may be necessary to remedy the failure by Hills Motorway and RMS may for this purpose enter the Project Site, the Temporary Areas, any Extra Land and any other land upon which Hills Motorway's Work is being carried out. RMS must give reasonable notice to Hills Motorway of its intention to cease taking such action, and must cease taking such action as soon as the failure has been remedied.*

(b) *If RMS intends to take action under clause 2.6(a) in connection with a failure by Hills Motorway to perform an obligation in respect of Stage 3A or Stage 4A, then, unless the action is Emergency Action (in which case RMS may take such action at any time), RMS must not take such action if:*

(i) *in the case of:*

- A. *Completion Action, Hills Motorway is diligently pursuing a program to remedy the failure (or to overcome its effects); or*
- B. *Reinstatement Action, Hills Motorway is diligently pursuing the implementation of a Stage 3A Reinstatement Plan; and*

(ii) *the M2 Motorway is open to the public to the extent that it is safe to do so (unless permitted otherwise in accordance with clause 8.4 of Annexure A or the M2 Motorway Project Deed).*

- (c) *To the extent RMS is entitled to take action under clause 2.6(a) in connection with a failure by Hills Motorway to perform an obligation in respect of Stage 3A or Stage 4A, RMS must first give Hills Motorway written notice of its intention to take such action, which notice must state, in reasonable detail, the action RMS proposes to take which must be either:*
- (i) *Emergency Action;*
  - (ii) *Completion Action; or*
  - (iii) *Reinstatement Action.*

*In identifying the type of action RMS intends to take in accordance with this clause 2.6(c), RMS agrees to act in good faith having regard to the intention of the Parties that RMS will not be entitled to be repaid any Loss it suffers or incurs in taking Completion Action, unless and until Construction Completion of Stage 3A is achieved by RMS.*

- (d) *Any Loss:*
- (i) *suffered or incurred by RMS in taking action under clause 2.6(a) other than in respect of Stage 3A or Stage 4A will, subject to clause 2.6(e);*
  - (ii) *reasonably suffered or incurred by RMS in taking Completion Action or Reinstatement Action will, subject to clauses 2.6(f)(ii) and 2.6(f)(iii); or*
  - (iii) *suffered or incurred by RMS in taking Emergency Action will, subject to clause 2.6A(f),*

*be a debt due and payable from Hills Motorway to RMS.*

- (e) *If:*
- (i) *RMS has exercised its Default Step-In Rights in connection with a failure by Hills Motorway to perform an obligation in respect of Stage 1, Stage 2, Stage 3 or Stage 4; or*
  - (ii) *to the extent RMS is or was entitled to exercise its Default Step-In Rights in connection with the failure by Hills Motorway to perform an obligation in respect of Stage 1, Stage 2, Stage 3 or Stage 4 and RMS takes action under this clause,*

*RMS's rights in connection with Loss suffered or incurred in the exercise of its Default Step-In Rights are limited to its right to repayment of any RMS Default Step-In Costs by the Company in accordance with clause 9.5.*

- (f) *If RMS elects to take action under clause 2.6(a) in connection with a failure by Hills Motorway to perform an obligation in respect of Stage 3A or Stage 4A, then:*
- (i) *to the extent RMS is performing Hills Motorway's Work, RMS must undertake such work in accordance with the Scope of Work and Technical Criteria and, where a verification, determination or certification of the Independent Verifier would have been by required by Hills Motorway in respect of the performance of that work, obtain*

*that verification, determination or certification from the Independent Verifier in accordance with the procedures specified in this Deed;*

- (ii) *to the extent RMS is taking Completion Action or Reinstatement Action:*
  - A. *RMS must give Hills Motorway written notification of any Loss reasonably suffered or incurred by RMS in taking such action;*
  - B. *RMS must provide Hills Motorway with copies of all documentation upon which RMS relies, and any other information reasonably required by Hills Motorway, to substantiate a notice issued by RMS under clause 2.6(f)(ii)(A); and*
  - C. *Hills Motorway's maximum aggregate liability to RMS for any Loss reasonably suffered or incurred in taking such action will be capped at \$28 million, to be repaid, subject to clause 2.6(f)(iii), to RMS from the Free Cash Flow derived by Hills Motorway from the M2 Motorway during the 24 month period commencing on the date of RMS's notice under clause 2.6(f)(ii)(A); and*
- (iii) *to the extent RMS is taking Completion Action, Hills Motorway will not have any obligation to repay RMS for any Loss suffered or incurred in connection with that action unless and until Construction Completion of Stage 3A is achieved by RMS as a consequence of taking that action.*
- (g) *The Parties agree that this clause 2.6 is RMS's sole remedy for the recovery of Loss suffered or incurred by RMS in connection with RMS's performance of Completion Action and Reinstatement Action.*

**2.6A Reinstatement of Stage 3A**

- (a) *Where, in connection with a failure by Hills Motorway to perform an obligation in respect of Stage 3A or Stage 4A, RMS:*
  - (i) *is entitled to take Completion Action under clause 2.6(a) but has not given Hills Motorway a notice under clause 2.6(c) within 60 Business Days of being entitled to do so; or*
  - (ii) *commences Completion Action under clause 2.6(a) but elects to cease exercising that action prior to Construction Completion of Stage 3A,*  
*and either:*
    - (i) *Hills Motorway is not able to comply with the Existing Operations, the M2 Motorway Project Deed or the M2 Motorway Upgrade Project Deed; or*
    - (ii) *RMS and Hills Motorway agree (acting reasonably) that the M2 Motorway should be reinstated to minimise a material adverse effect that the failure by Hills Motorway to perform an obligation in respect*

of Stage 3A or Stage 4A will have on the capacity or patronage of the M2 Motorway,

either Party may propose a plan (**Stage 3A Reinstatement Plan**) for the reinstatement of that part of the M2 Motorway affected by the Project Works comprised in Stage 3A.

- (b) A Stage 3A Reinstatement Plan must contain a detailed description of the works necessary to ensure the prompt repair or replacement of that part of the M2 Motorway affected by the Project Works comprised in Stage 3A so that:
- (i) the Company and the Trustee are able to comply with their obligations under the M2 Motorway Project Deed and the M2 Motorway Upgrade Project Deed;
  - (ii) the material adverse effect of the failure by Hills Motorway to perform an obligation in respect of Stage 3A or Stage 4A upon the capacity or patronage of the M2 Motorway is minimised; and
  - (iii) to the extent reasonably practicable having regard to the other Stage 3A Reinstatement Criteria only, it preserves the flexibility of the Parties to continue to carry out the Project (having regard to the nature of the relevant failure by Hills Motorway to perform an obligation in respect of Stage 3A or Stage 4A),
- (the **Stage 3A Reinstatement Criteria**).
- (c) Within 20 Business Days following receipt of a Stage 3A Reinstatement Plan from Hills Motorway (**Hills Stage 3A Reinstatement Plan**), RMS may either:
- (i) direct Hills Motorway to carry out the Hills Stage 3A Reinstatement Plan; or
  - (ii) direct Hills Motorway to carry out an alternate Stage 3A Reinstatement Plan proposed by RMS (**RMS Stage 3A Reinstatement Plan**).
- (d) If RMS proposes an RMS Stage 3A Reinstatement Plan in accordance with clause 2.6A(c)(ii), Hills Motorway must, within 20 Business Days of receipt of the RMS Stage 3A Reinstatement Plan, either:
- (i) notify RMS of its acceptance of the RMS Stage 3A Reinstatement Plan; or
  - (ii) if Hills Motorway considers in good faith that the RMS Stage 3A Reinstatement Plan does not comply with the Stage 3A Reinstatement Criteria, refer this dispute for determination under clause 11.
- (e) As soon as reasonably practicable following the earlier of:
- (i) a direction by RMS to carry out a Hills Stage 3A Reinstatement Plan;
  - (ii) notification by Hills Motorway to RMS of its acceptance of the RMS Stage 3A Reinstatement Plan; and

- (iii) *determination of a dispute as to whether the RMS Stage 3A Reinstatement Plan complies with the Stage 3A Reinstatement Criteria and, if not, the changes required so that it does meet the Stage 3A Reinstatement Criteria,*

*Hills Motorway must diligently pursue the implementation of the applicable Stage 3A Reinstatement Plan.*

- (f) *RMS must provide to Hills Motorway copies of all documentation upon which RMS relies, and any other information reasonably required by Hills Motorway, to substantiate the Loss referred to in clause 2.6(d)(iii)."*

5. A new clause 2.8 is inserted immediately after clause 2.7 of the Upgrade Project Deed as follows:

**"2.8 Refinancing of M2 Upgrade LCR Subordinated Debt**

- (a) *Hills Motorway must refinance the M2 Upgrade LCR Subordinated Debt in accordance with clause 2.8(b) by no later than the Subordinated Debt Refinance Date.*
- (b) *Hills Motorway must refinance the M2 Upgrade LCR Subordinated Debt to be included in the Project Debt and otherwise on the terms and conditions to which RMS and the Minister have consented pursuant to the Subordinated Debt Consent Letter.*
- (c) *Notwithstanding clause 5 (Undertaking as to period of subordination) of the Financier Subordinated Debt Consent Letter, RMS does not consent to Hills Motorway delaying the repayment or refinancing of the M2 Upgrade LCR Subordinated Debt (or any part of it) beyond the Subordinated Debt Refinance Date."*

6. A new clause 6.5 is inserted immediately after clause 6.4 of the Upgrade Project Deed as follows:

**"6.5 Amendments which take effect from the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A**

*Each Party agrees that, with effect from the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A, the M2 Motorway Project Deed is varied in the manner outlined in Schedule 3A."*

7. Clause 7.2(a) of the Upgrade Project Deed is amended by deleting the word "to" immediately after the word "entitled";

8. Clause 8.2 of the Upgrade Project Deed is amended by inserting the following clauses after clause 8.2(g):

- "(h) by RMS that is not Commercially Sensitive Information; or*
- (i) without limiting this clause 8.2, or clause 8.4 any disclosure by the RMS's Representative of any Project Document relating to this deed and which Hills Motorway (acting reasonably) has agreed with RMS's Representative contains no Commercially Sensitive Information.;"*



9. Clause 8 of the Upgrade Project Deed is amended by inserting the following clause after clause 8.3:

**"8.4 Disclosure by RMS**

- (a) *Notwithstanding the other provisions of this clause 8 but subject to clause 8.4(b), the parties acknowledge that:*
- (i) *the Project Documents will be made available to the Auditor-General in accordance with the Public Finance and Audit Act 1983 (NSW);*
  - (ii) *information concerning the Project Documents will be tabled in Parliament by or on behalf of RMS and will be published in accordance with applicable government policies and guidelines;*
  - (iii) *the Project Documents and information concerning the Project Documents will be published on RMS's contracts register in accordance with the GIPA Act; and*
  - (iv) *RMS and RMS's Representative may make the Project Documents or any of them available to any person as required by any applicable Law.*
- (b) *The parties acknowledge that:*
- (i) *RMS has consulted with Hills Motorway in relation to the disclosure of those parts of the Project Documents that are not Commercially Sensitive Information;*
  - (ii) *RMS will notify Hills Motorway of any proposed disclosure of any information that RMS considers (acting reasonably) may be Commercially Sensitive Information by RMS under the GIPA Act no later than 20 Business Days before the proposed date of disclosure;*
  - (iii) *following notification by RMS in accordance with clause 8.4(b)(ii), RMS will take reasonable steps to consult with Hills Motorway before disclosing the information referred to in clause 8.4(b)(ii), including under the GIPA Act;*
  - (iv) *if, following:*
    - A. *notification by RMS in accordance with clause 8.4(b)(ii);*
    - or
    - B. *consultation between RMS and Hills Motorway in accordance with clause 8.4(b)(iii),*

*Hills Motorway objects to disclosure of some or all of the information referred to in clause 8.4(b)(ii) on the basis that it is Commercially Sensitive Information, Hills Motorway must provide details of any such objection within 5 Business Days of the date Hills Motorway received notification from RMS or the date on which the consultation process concluded (as relevant);*
  - (v) *RMS may take into account any objection received from Hills Motorway pursuant to clause 8.4(b)(iv) in determining whether the*

*information identified by Hills Motorway as Commercially Sensitive Information should be disclosed; and*

*(vi) nothing in this clause 8.4 will limit or otherwise affect the discharge of RMS's obligations under the GIPA Act.”;*

10. Clause 9.3(a) of the Upgrade Project Deed is deleted and replaced with the following clause:

*“(a) If the Event of Default is not remedied (or its effects overcome) within the period specified in the notice given pursuant to clause 9.2(a) (as extended if at all in accordance with clause 9.2(e), clause 9.2(f) or clause 9.2(g)) or if at any time during that period:*

*(i) Hills Motorway is not diligently pursuing a program to remedy the Event of Default (or to overcome its effects); or*

*(ii) the M2 Motorway is not open to the public to the extent that it is safe to do so (unless permitted otherwise in accordance with clause 8.4 of Annexure A or the M2 Motorway Project Deed),*

*RMS may give Hills Motorway 20 Business Days' written notice of its intention to:*

*(iii) if the Event of Default has occurred other than in respect of Stage 3A or Stage 4A:*

*(A) exercise its Default Step-In Rights in accordance with clause 9.4; or*

*(B) terminate this Deed in accordance with clause 9.8; or*

*(iv) if the Event of Default has occurred in respect of Stage 3A or Stage 4A, terminate the rights and obligations of Hills Motorway with respect to Stage 3A and Stage 4A in accordance with clause 9.8A,*

*and during that 20 Business Day period Hills Motorway will have a right to remedy the Event of Default (or overcome its effects).”*

11. A new clause 9.4(m) is inserted immediately after clause 9.4(l) of the Upgrade Project Deed as follows:

*“(m) subject to clause 9.4(n), this clause 9.4 does not apply to an Event of Default in respect of Stage 3A or Stage 4A.”;*

12. A new clause 9.4(n) is inserted immediately after clause 9.4(m) of the Upgrade Project Deed as follows:

*“(n) If RMS achieves Construction Completion of Stage 3A or Stage 4A in the course of exercising its rights under clause 2.6 in respect of Stage 3A or Stage 4A (as applicable):*

*(1) the achievement of Construction Completion of that Stage will be deemed to be a remedy by Hills Motorway of the Event of Default in respect of which RMS exercised its rights under clause 2.6;*

- (2) *the Stage will form part of the M2 Motorway as if Hills Motorway had achieved Construction Completion of that Stage; and*
- (3) *Hills Motorway must comply with its obligations in respect of that Stage under this Deed and the M2 Motorway Project Deed (including, for the avoidance of doubt, Hills Motorway's obligations under clause 11 of Annexure A) as if Hills Motorway had achieved Construction Completion of that Stage."*

13. Clause 9.5(l) of the Upgrade Project Deed is deleted and replaced with the following clause:

*"(l) The Parties agree that the quantum of any RMS Default Step-In Costs to be paid by the Trustee in accordance with this Deed will exclude any amounts received by RMS in accordance with clause 4.2 of the Equity Subscription Deed."*

14. A new clause 9.5(m) is inserted immediately after clause 9.5(l) of the Upgrade Project Deed as follows:

*"(m) This clause 9.5 does not apply to an Event of Default in respect of Stage 3A or Stage 4A."*

15. A new clause 9.5A(l) is inserted immediately after clause 9.5A(k) of the Upgrade Project Deed as follows:

*"(l) This clause 9.5A does not apply to an Event of Default in respect of Stage 3A or Stage 4A."*

16. A new clause 9.6(f) is inserted immediately after clause 9.6(e) of the Upgrade Project Deed as follows:

*"(f) This clause 9.6 does not apply to an Event of Default in respect of Stage 3A or Stage 4A."*

17. A new sentence is inserted at the end of clause 9.6A as follows:

*"This clause 9.6A does not apply to an Event of Default in respect of Stage 3A or Stage 4A."*

18. A new clause 9.6B(f) is inserted immediately after clause 9.6B(e) of the Upgrade Project Deed as follows:

*"(f) This clause 9.6B does not apply to an Event of Default in respect of Stage 3A or Stage 4A."*

19. A new clause 9.7(f) is inserted immediately after clause 9.7(e) of the Upgrade Project Deed as follows:

*"(f) This clause 9.7 does not apply to an Event of Default in respect of Stage 3A or Stage 4A."*

20. A new clause 9.7A(e) is inserted immediately after clause 9.7A(d) of the Upgrade Project Deed as follows:

"(e) This clause 9.7A does not apply to an Event of Default in respect of Stage 3A or Stage 4A.";

21. A new clause 9.8A is inserted immediately after clause 9.8 of the Upgrade Project Deed as follows:

**"9.8A Termination of Stage 3A and Stage 4A**

"(a) If, at the expiration of the 20 Business Day period following the issue of a Termination Notice (Stage 3A and Stage 4A), the Event of Default has not been remedied (or its effects overcome), RMS may, terminate the rights and obligations of Hills Motorway with respect to Stage 3A and Stage 4A by written notice to Hills Motorway.

(b) Upon termination of the rights and obligations of Hills Motorway with respect to Stage 3A and Stage 4A pursuant to this clause 9.8A:

(i) RMS will not be liable to pay any compensation or other moneys to Hills Motorway by reason of that termination (including, where RMS does not exercise its right to require novation of a Subcontract under clause 9.8A(b)(iv), any amounts payable by Hills Motorway to the relevant Subcontractor following termination of that Subcontract);

(ii) Hills Motorway must carry out any rectification or remediation work reasonably required by RMS to reinstate the relevant parts of the M2 Motorway in accordance with the Stage 3A Reinstatement Criteria (other than paragraph (iii) of those criteria) and enable the M2 Motorway to be operated in accordance with the M2 Motorway Project Deed;

(iii) if and to the extent that Hills Motorway fails to carry out such rectification or remediation work:

A. to the reasonable satisfaction of RMS; and

B. within the period to be specified by RMS after notice is given under clause 9.8A(a),

RMS will be entitled to carry out itself, or procure, the rectification or remediation work, and any Loss suffered or incurred by RMS in taking action under this clause 9.8A(b)(iii) will, subject to clause 9.8A(e), be a debt due and payable from Hills Motorway to RMS except to the extent such Loss arises from the negligence or wilful default of RMS or its contractors;

(iv) RMS may require a novation of any one or more of any Subcontract or other contract entered into by Hills Motorway in respect of Hills Motorway's Work comprised in Stage 3A or Stage 4A to the extent necessary to enable RMS to exercise its rights under clause 9.8A(b)(iii);

(v) Hills Motorway must execute all documentation required to effect a transfer to RMS of its interest in the Project Assets relating solely to Stage 3A and Stage 4A, to the extent necessary to enable RMS to exercise its rights under clause 9.8A(b)(iii);

- (vi) *Hills Motorway must:*
- A. *hand over (or provide copies of) books of account and all other records relating to Hills Motorway's Work comprised in Stage 3A and Stage 4A;*
  - B. *hand over the Proprietary Documentation in respect of Stage 3A and Stage 4A;*
  - C. *procure the assignment of the Company's rights under the insurance policies maintained by the Company under clause 15 of Annexure A, in respect of Stage 3A and Stage 4A only; and*
  - D. *hand over (or provide copies of) any other documentation relating to Stage 3A or Stage 4A within the custody or control of Hills Motorway and Hills Motorway's Subcontractors,*
- to RMS or its nominee to the extent necessary to enable RMS to exercise its rights under clause 9.8A(b)(iii);*
- (vii) *other than as required by (and to give effect to) clause 9.3(c), the rights and obligations of Hills Motorway and RMS under this Deed and under the M2 Motorway Project Deed in respect of Stage 3A and Stage 4A (other than those rights and obligations which are expressly stated to survive rescission, termination or expiration of all or part of this Deed or the M2 Motorway Project Deed, as the case may be) will have no further effect;*
- (viii) *other than to the extent it forms part of the M2 Motorway in accordance with clause 9.3(c) or Land (as defined in the M2 Motorway Project Deed), the Project Site (in respect of Stage 3A and Stage 4A), the Temporary Areas (in respect of Stage 3A and Stage 4A) and any other land upon which Hills Motorway's Work is being carried out in respect of Stage 3A or Stage 4A will revert to RMS;*
- (ix) *Hills Motorway must continue to comply with its obligations, and will continue to have the benefits and of all rights, under this Deed and the M2 Motorway Project Deed with respect to Stage 1, Stage 2, Stage 3 and Stage 4; and*
- (x) *the Company must continue to operate and maintain the M2 Motorway in accordance with the M2 Motorway Project Deed.*
- (c) *Hills Motorway acknowledges that nothing in this clause 9.8A obliges RMS to require the novation of any Subcontract under clause 9.8A(b)(iv).*
- (d) *Hills Motorway, for the sole purpose of executing any document reasonably required for the sole purposes of or to give effect to clause 9.8A(b), irrevocably appoints RMS as its attorney on and from the date of termination of its rights and obligations with respect to Stage 3A and Stage 4A with full power and authority to execute any such document on behalf of Hills Motorway if Hills Motorway fails to execute such document or do such other thing within 5 Business Days of being requested in writing to do so by RMS.*

- (e) *In respect of any Loss suffered or incurred by RMS in taking action under clause 9.8A(b)(iii):*
- (i) *RMS must provide Hills Motorway with copies of all documentation upon which RMS relies, and any other information reasonably required by Hills Motorway, to substantiate the Loss suffered or incurred by RMS; and*
  - (ii) *Hills Motorway's maximum aggregate liability to RMS for any Loss reasonably suffered or incurred in taking such action under clause 9.8A(b)(iii) will be capped at \$28 million, to be repaid to RMS from the Free Cash Flow derived by Hills Motorway from the M2 Motorway during the 24 month period commencing on the date of RMS's notice under clause 9.8A(a)."*
22. Clause 16.3(e)(ii) of the Upgrade Project Deed is amended by deleting the character "]" at the end of that clause;
23. Schedule 3 to the Upgrade Project Deed is deleted and replaced with a new schedule in the form attached as Appendix A to this Schedule 1;
24. A new Schedule 3A is inserted immediately after Schedule 3 to the Upgrade Project Deed in the form attached as Appendix B to this Schedule 1;
25. Paragraph 3.4 of Schedule 5 to the Upgrade Project Deed is amended by deleting the first occurrence of the word "upon";
26. Schedule 7 to the Upgrade Project Deed is deleted and replaced with a new schedule in the form attached as Appendix C to this Schedule 1;
27. A new Schedule 8 is inserted after Schedule 7 to the Upgrade Project Deed in the form attached as Appendix D to this Schedule 1;
28. Clause 1.1 of Annexure A to the Upgrade Project Deed is amended by:
- (a) deleting the definition of "Change in Law" and replacing it with the following definition:
 

*"Change in Law means:*

    - (a) *an increase in the cost of performance of Hills Motorway's obligations under the M2 Upgrade Project Deed:*
      - (i) *with respect to each of Stage 1, Stage 2, Stage 3 and Stage 4, beyond that reasonably anticipated at the time of entering into the M2 Upgrade Project Deed; and*
      - (ii) *with respect to each of Stage 3A and Stage 4A, beyond that reasonably anticipated at the time of entering into the On-Ramp Amending Deed,*

*due to:*

    - (iii) *a change in:*

- A. *New South Wales or local government legislation including regulations or by-laws;*
  - B. *New South Wales Authority requirements; or*
  - C. *New South Wales government, local government or State Authority guidelines with which Hills Motorway is legally required to comply;*
- (iv) *a change in the application of the existing lawful requirements of a New South Wales Authority; or*
  - (v) *a court handing down a Final Determination which changes the judicial interpretation of existing New South Wales legislation; or*
- (b) *an increase in the cost of performance of Hills Motorway's obligations under the M2 Upgrade Project Deed:*
- (i) *with respect to each of Stage 1, Stage 2, Stage 3 and Stage 4, beyond that reasonably anticipated at the time of entering into the M2 Upgrade Project Deed; and*
  - (ii) *with respect to each of Stage 3A and Stage 4A, beyond that reasonably anticipated at the time of entering into the On-Ramp Amending Deed,*
- due to:*
- (iii) *a change in:*
    - A. *Commonwealth government legislation including regulations or by-laws;*
    - B. *Commonwealth Authority requirements; or*
    - C. *Commonwealth government or Commonwealth Authority guidelines with which Hills Motorway is legally required to comply;*
  - (iv) *a change in the application of the existing lawful requirements of a Commonwealth Authority; or*
  - (v) *a court handing down a Final Determination which changes the judicial interpretation of existing Commonwealth legislation,*

*except in respect of income taxation."*

- (b) deleting the definition of "Contractor" and replacing it with the following definition:

**"Contractor means:**

- (a) *in relation to each of Stage 1, Stage 2, Stage 3 and Stage 4, Leighton Contractors; and*

- (b) *in relation to each of Stage 3A and Stage 4A, the On-Ramp D&C Contractor."*
- (c) deleting the definition of "Contractor Guarantor" and replacing it with the following definition:
- "Contractor Guarantor means:**
- (a) *in relation to Leighton Contractors, Leighton Holdings Limited ABN 57 004 482 982; and*
- (b) *in relation to the On-Ramp D&C Contractor, the On-Ramp D&C Guarantor."*
- (d) inserting a new paragraph (c1) after paragraph (c) in the definition of "Date for Construction Completion" as follows:
- "(c1) in respect of Stage 3A, the date which is 58 weeks after the LCOR Effective Date;"*
- (e) inserting a new paragraph (d1) after paragraph (d) in the definition of "Date for Construction Completion" as follows:
- "(d1) in respect of Stage 4A, the date which is 70 weeks after the LCOR Effective Date;"*
- (f) deleting paragraphs (b) and (c) of the definition of "Change Costs" and replacing them with the following new paragraphs (b) and (c):
- "(b) delay costs incurred by Hills Motorway in carrying out the Change, if it prevents Hills Motorway from achieving Final Completion by the Date for Final Completion or Construction Completion of Stage 4A by the Date for Construction Completion of Stage 4A, except to the extent that Hills Motorway and its Subcontractors have not taken all reasonable steps to mitigate the delay; and*
- (c) if clause 4.2(b) applies and the Change prevents Hills Motorway from achieving Construction Completion of Stage 3 by the Date for Construction Completion of Stage 3 or Construction Completion of Stage 3A by the Date for Construction Completion of Stage 3A, delay costs incurred by Hills Motorway, and loss, and delay of receipt of revenue suffered by Hills Motorway, in carrying out the Change."*
- (g) deleting the definition of "Heritage Report" and replacing it with the following definition:
- "Heritage Report means, in respect of a particular location of the Project Site, the heritage report prepared by the Heritage Consultant prior to the date of the M2 Upgrade Project Deed for Stage 1, Stage 2 and Stage 3, or the heritage report prepared by the Heritage Consultant prior to the date of the On-Ramp Amending Deed for Stage 3A."**



- (h) deleting the definition of "Material Adverse Effect" and replacing it with the following definition:

*"Material Adverse Effect means a material adverse effect on:*

- (a) *the ability of the Borrower to pay the Financiers the amounts due under, and substantially in accordance with:*
  - (i) *the M2 Upgrade Debt Financing Documents; or*
  - (ii) *the M2 Upgrade LCR Subordinated Loan Agreement;*
- (b) *M2 Upgrade Equity Return; or*
- (c) *the LCR Equity Return."*

- (i) deleting the definition of "M2 Upgrade Project Securities" and replacing it with the following definition:

*"M2 Upgrade Project Securities means those shares in the Company and units in the Trust issued on each Required Equity Contribution Date in accordance with the Equity Subscription Deed up to the Required Equity Contribution Amount."*

- (j) deleting the definition of "Overall D&C Program" in Annexure A and replacing it with the following definition:

*"Overall D&C Program means:*

- (a) *in relation to Stage 1, Stage 2 and Stage 3, the overall program for design and construction activities which is Part 1 of Exhibit C to the M2 Upgrade Project Deed and updated in accordance with clause 5.11; and*
- (b) *in relation to Stage 3A and Stage 4A, the overall program for design and construction activities which is Part 2 of Exhibit C to the M2 Upgrade Project Deed and updated in accordance with clause 5.11."*

- (k) deleting the definition of "Project Approval" and replacing it with the following definition:

*"Project Approval means the approval dated 21 October 2010 issued by the Minister for Planning pursuant to Part 3A of the EP&A Act in respect of the Project Works and the Temporary Works comprising Stage 1, Stage 2 and Stage 3, and all conditions to it, all of which appears as Exhibit B to the M2 Upgrade Project Deed and includes all documents incorporated by reference, as modified by the approval for Stage 3A granted pursuant to section 75W of the EP&A Act, all of which appears as Exhibit F to the M2 Upgrade Project Deed and includes all documents incorporated by reference.";*

- (l) deleting the definition of "Project Document" and replacing it with the following definition:

*"Project Document means:*

- (a) *the M2 Upgrade Project Deed (including for the avoidance of doubt this Annexure A);*
  - (b) *the Deed of Appointment of Independent Verifier;*
  - (c) *the Deed of Appointment of Environmental Representative;*
  - (d) *the 2009 RMS Charge;*
  - (e) *the RTA Consent Deed;*
  - (f) *the RTA Upgrade Consent Deed;*
  - (g) *the Side Deed;*
  - (h) *the On-Ramp D&C Side Deed; and*
  - (i) *any other document the Parties agree is a Project Document for the purposes of the M2 Upgrade Project Deed or the Project."*
- (m) deleting the definition of "Project Plan" and replacing it with the following definition:
- "Project Plan means each of the Upgrade Project Plans and the On-Ramp Project Plans."***
- (n) deleting the definition of "Property Works" and replacing it with the following definition:
- "Property Works means:***
- (a) *those works described in sections 2.3.1(b) and 6.1 of the Scope of Works and Technical Criteria;*
  - (b) *in respect of Stage 1, Stage 2 or Stage 3, all other works necessary to ensure that:*
    - (i) *the amenity of;*
    - (ii) *access to and egress from; or*
    - (iii) *the functionality of,*

*any property (including any structure thereon), including such property located outside of the Project Site, which is affected by Hills Motorway's Work is maintained to at least the standard that it was in immediately prior to the date of the M2 Upgrade Project Deed including:*

    - (i) *fences to separate the property located outside of the Project Site from property located within the Project Site;*
    - (ii) *access routes;*
    - (iii) *drainage structures; and*
    - (iv) *landscaping and reinstatement works; and*

- (c) *in respect of Stage 3A, all other works necessary to ensure that:*
- (i) *the amenity of;*
  - (ii) *access to and egress from; or*
  - (iii) *the functionality of,*
- any property (including any structure thereon), including such property located outside of the Project Site, which is affected by Hills Motorway's Work is maintained to at least the standard that it was in immediately prior to the date of the On-Ramp Amending Deed including:*
- (i) *fences to separate the property located outside of the Project Site from property located within the Project Site;*
  - (ii) *access routes;*
  - (iii) *drainage structures; and*
  - (iv) *landscaping and reinstatement works.";*
- (o) deleting the definition of "Security Bond" and replacing it with the following definition:
- "Security Bond means each of the unconditional and irrevocable bank undertakings referred to in clauses 12.1 and 12.1A and includes any Replacement Security Bond.";*
- (p) deleting the definition of "Side Deed" and replacing it with the following definition:
- "Side Deed means the deed entitled "Side Deed" entered into between RMS, the Company, the Trustee, Leighton Contractors and Leighton Holdings Limited ABN 57 004 482 982 dated on or about the date of the M2 Upgrade Project Deed."*
- (q) deleting the definition of "Stage 3" and replacing it with the following definition:
- "Stage 3 means, without limiting the Scope of Works and Technical Criteria, the balance of Hills Motorway's Work not completed as part of Stage 1, Stage 2, Stage 3A, Stage 4 or Stage 4A but does not include the RMS TMC integration works required by section 47.3 of Appendix 47 to the Scope of Works and Technical Criteria.";*
- (r) deleting the definition of "Stage 4" and replacing it with the following definition:
- "Stage 4 means:*
- (a) *provision to RMS (in a form satisfactory to RMS, acting reasonably) of the following documentation in respect of the Project Works comprising Stage 1, Stage 2 or Stage 3:*

- (i) *a summary prepared by the Quality Manager pursuant to clause 3.3(b)(ii) on all quality issues;*
  - (ii) *all documents relating to all non-conformances pursuant to clause 3.5(c);*
  - (iii) *copies of all site investigation reports and property condition surveys pursuant to section 4.1(b) of the Scope of Works and Technical Criteria;*
  - (iv) *a contamination report in respect of each Temporary Area;*
  - (v) *details of the location of Services pursuant to section 6.3(a) of the Scope of Works and Technical Criteria;*
  - (vi) *a certificate or statement (as the case may be) of the kind referred to in clause 8.9(a)(ii) relating to the Property Works in respect of each Parcel;*
  - (vii) *a written notice of the kind referred to in clause 11.5(a)(i)A from the relevant Authority for each discrete part of the Local Road Works;*
  - (viii) *a written notice of the kind referred to in clause 11.6(a)(i) from the relevant Authority for each discrete part of the Service Works which is necessary or required to be completed so that the M2 Upgrade may be opened to the public for the safe, efficient and continuous passage of motor vehicles;*
  - (ix) *copies of "As Constructed Drawings" of the Project Works and other documentation required by the Company Documentation Schedule;*
  - (x) *the written releases or statements required pursuant to clause 2.4(a)(ii) in respect of any Extra Land;*
  - (xi) *the bridge and slope inventory details required in accordance with Appendix 12 to the Scope of Works and Technical Criteria; and*
  - (xii) *the Security Bond required under clause 12.1;*
- (b) *the vacation and reinstatement of any land affected by or used for the purposes of the Temporary Works in connection with Stage 1, Stage 2 or Stage 3;*
  - (c) *the reinstatement and clean-up of the Project Site (other than the Project Site to which Hills Motorway will have access to or possession or use of in connection with Stage 3A) required by the Environmental Documents and the Scope of Works and Technical Criteria;*
  - (d) *provided that RMS has carried out the work referred to in section 47.3.1.e of Appendix 47 to the Scope of Works and Technical*

*Criteria, the RMS TMS integration works required by section 47.3 of Appendix 47 to the Scope of Works and Technical Criteria; and*

- (e) *approval by RMS of the revised Maintenance Manual required under clause 13 of this Annexure A. ";*
- (s) deleting the definition of "Subsidiary D&C Program" and replacing it with the following definition:

**"Subsidiary D&C Program** means each of the Upgrade Program and the Subsidiary D&C (On-Ramp) Program. ";

- (t) deleting the definition of "Term" and replacing it with the following definition:

**"Term** means:

- (a) *in respect of the definitions of LCR Equity Return, Notional Initial LCR Equity Investor, M2 Upgrade Equity Return and Notional Initial M2 Upgrade Equity Investor, and clause 17.2, and only in respect of the period from the Satisfaction Date until the Date of Final Completion, the period which begins on the M2 Motorway Commencement Date and ends on the day 49 years after that date; and otherwise*

- (b) *the period which begins on the M2 Motorway Commencement Date and ends on the day the Term ends under the Leases. "; and*

- (u) inserting the following definitions in clause 1.1 of Annexure A in appropriate alphabetical order:

**"D&C Contract** means the M2 Motorway Upgrade Design and Construct Deed between Hills Motorway and Leighton Contractors dated on or about the date of the M2 Upgrade Project Deed."

**"LCR Base Case Equity Return** is, at any time, a real after tax internal rate of return for a Notional Initial LCR Equity Investor on its investment in the Company and the Trust, of  per cent per annum."

**"LCR Base Case Financial Model** means the financial model and assumptions prepared by Hills Motorway and agreed and audited in accordance with clause 2.1(b) of the On-Ramp Amending Deed and initialled by the Parties for identification."

**"LCR Base Case Model** means the LCR Base Case Financial Model to the extent to which that financial model includes projections and calculations with respect to the repayment of the M2 Upgrade LCR Subordinated Debt and the payment to the LCR Equity Investors of the LCR Base Case Equity Return."

**"LCR Contribution Date** has the meaning given in the Equity Subscription Deed."

**"LCR Equity Subscription Contribution** has the meaning given in the Equity Subscription Deed."

**"LCR Equity Investor** means a person who holds M2 Upgrade (LCR) Project Securities."

**"LCR Equity Return** is, at any time, the expected real after tax internal rate of return which a Notional Initial LCR Equity Investor is projected to receive over the Term on its investment in the M2 Upgrade (LCR) Project Securities."

**"M2 Upgrade (LCR) Project Securities** means those shares in the Company and units in the Trust issued on each LCR Contribution Date in accordance with the Equity Subscription Deed up to the LCR Equity Subscription Contribution. "

**"Notional Initial LCR Equity Investor** is a notional corporate taxpayer who:

- (a) is issued with the M2 Upgrade (LCR) Project Securities pursuant to the Equity Subscription Deed in the ratio 155:185 on the basis that one share in the Company is Stapled to one unit in the Trust and that the aggregate cost of the investment in the M2 Upgrade (LCR) Project Securities cannot exceed \$11 million; and
- (b) holds those shares and units from the date they are issued until the end of the Term."

**"On-Ramp Amending Deed** means the deed entitled "M2 Motorway: Lane Cove Road On-Ramp Amending Deed" between the parties to this deed dated on or about May 2013."

**"On-Ramp Concept Design** means the concept design prepared by Hills Motorway and included in Appendix 30A to the Scope of Works and Technical Criteria."

**"On-Ramp D&C Contract** means the document entitled "Lane Cove Road Ramp Design and Construction Deed" between the Company, the Trustee and the On-Ramp D&C Contractor dated on or about the date of the On-Ramp Amending Deed."

**"On-Ramp D&C Contractor** means Fulton Hogan Construction Pty Ltd ABN 46 010 240 758."

**"On-Ramp D&C Guarantor** means Fulton Hogan Australia Pty Ltd ABN 42 135 849 115."

**"On-Ramp D&C Side Deed** means the document entitled "On-Ramp D&C Side Deed" between RMS, the Company, the Trustee, the On-Ramp D&C Contractor and the On-Ramp D&C Guarantor dated on or about the date of the On-Ramp Amending Deed."

**"On-Ramp Project Plan** means each of the:

- (a) Quality Plan;
- (b) Project Management Plan;
- (c) Design Plan;
- (d) Construction Plan;
- (e) Community Involvement Plan;

- (f) *Traffic Management and Safety Plan;*
- (g) *Project Training Plan;*
- (h) *Environmental Management Plans; and*
- (i) *Work Health and Safety Management Plans,*

*in respect of Stage 3A and Stage 4A as each such plan may be updated, amended and developed under clause 5.12.*

**"Leighton Contractors** means *Leighton Contractors Pty Limited ABN 98 000 893 667.*"

**"Required Equity Contribution Amount** has the meaning given in the *Equity Subscription Deed.*"

**"Required Equity Contribution Date** has the meaning given in the *Equity Subscription Deed.*"

**"Stage 3A** means, *without limiting the Scope of Works and Technical Criteria:*

- (a) *Hills Motorway's Work to be carried out by Hills Motorway to the east of the eastern kerb line of Lane Cove Road, including any work that is necessary to ensure the safe, efficient and continuous operation of the new on-ramp to be constructed at Lane Cove Road;*
- (b) *the Property Works to be carried out by Hills Motorway in connection with the properties located at 301-307 Lane Cove Road to maintain access to and egress from those properties to Lane Cove Road;*
- (c) *the ITS Works to be carried out by Hills Motorway to ensure the safe operation and tolling of the new on-ramp at Lane Cove Road;*
- (d) *the directional and regulatory signage to be erected by Hills Motorway on or adjacent to the M2 Motorway and the Local Roads to ensure the safe operation and tolling of the new on-ramp at Lane Cove Road; and*
- (e) *an over height vehicle detection system with provisions to re-direct over height vehicles to Delhi Road to be installed by Hills Motorway,*

*and any other Project Works and Temporary Works required to be completed in Stage 3A in accordance with the Scope of Works and Technical Criteria."*

**"Stage 4A** means:

- (a) *provision to RMS (in a form satisfactory to RMS, acting reasonably) of the following documentation in respect of the Project Works comprising Stage 3A:*
  - (i) *a summary prepared by the Quality Manager pursuant to clause 3.3(b)(ii) on all quality issues;*
  - (ii) *all documents relating to all non-conformances pursuant to clause 3.5(c);*

- (iii) *copies of all site investigation reports and property condition surveys pursuant to section 4.1(b) of the Scope of Works and Technical Criteria;*
- (iv) *a contamination report in respect of each Temporary Area;*
- (v) *details of the location of Services pursuant to section 6.3(a) of the Scope of Works and Technical Criteria;*
- (vi) *a certificate or statement (as the case may be) of the kind referred to in clause 8.9(a)(ii) relating to the Property Works in respect of each Parcel;*
- (vii) *a written notice of the kind referred to in clause 11.5(a)(i)A from the relevant Authority for each discrete part of the Local Road Works;*
- (viii) *a written notice of the kind referred to in clause 11.6(a)(i) from the relevant Authority for each discrete part of the Service Works which is necessary or required to be completed so that the M2 Upgrade may be opened to the public for the safe, efficient and continuous passage of motor vehicles;*
- (ix) *copies of "As Constructed Drawings" of the Project Works and other documentation required by the Company Documentation Schedule;*
- (x) *the written releases or statements required pursuant to clause 2.4(a)(ii) in respect of any Extra Land;*
- (xi) *the bridge and slope inventory details required in accordance with Appendix 12 to the Scope of Works and Technical Criteria; and*
- (xii) *the Security Bond required under clause 12.1A;*
- (b) *the vacation and reinstatement of any land affected by or used for the purposes of the Temporary Works in connection with Stage 3A;*
- (c) *the reinstatement and clean-up of the Project Site required by the Environmental Documents and the Scope of Works and Technical Criteria; and*
- (d) *approval by RMS of the revised Maintenance Manual required under clause 13 of this Annexure A."*

**"Subsidiary D&C (On-Ramp) Program** has the meaning given to that term in clause 5.11(a1) of this Annexure A."

**"Upgrade Program** has the meaning given to that term in clause 5.11(a) of this Annexure A."

**"Upgrade Project Plan** means each of the:



- (a) *Quality Plan;*
- (b) *Project Management Plan;*
- (c) *Design Plan;*
- (d) *Construction Plan;*
- (e) *Community Involvement Plan;*
- (f) *Traffic Management and Safety Plan;*
- (g) *Occupational Health, Safety and Rehabilitation Management Plan;*
- (h) *Project Training Plan; and*
- (i) *Environmental Management Plans.*

*in respect of Stage 1, Stage 2, Stage 3 and Stage 4 as each such plan may be updated, amended and developed under clause 5.12."*

*"WHS Act means the Work Health and Safety Act 2011 (NSW)."*

*"WHS Legislation means legislation relating to health and safety at work including:*

- (a) *the WHS Act; and*
- (b) *the Work Health and Safety Regulation 2011 (NSW)."*

***Work Health and Safety Management Plan** means the Project Plan of that name prepared by Hills Motorway referred to in Appendix 14 to the Scope of Works and Technical Criteria, the initial one of which appears in Appendix 41 to the Scope of Works and Technical Criteria.";*

29. Clause 2.1 of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

**"2.1 Access**

*Subject to clauses 2.2, 2.5, 2.6, 2.7 and 2.8 of this Annexure A, for the period from the Satisfaction Date up to the date of correction of all Defects in the Project Works in accordance with clause 11 of this Annexure A, RMS must ensure that Hills Motorway and its contractors, sub-contractors, servants, agents and workmen and each of their employees and invitees and any other person authorised by Hills Motorway are entitled to have access to, possession and use of the Project Site and the Temporary Areas at all times in accordance with the Site Access Schedule at no cost to Hills Motorway together with all necessary vehicles, equipment, materials and appliances for the purpose of Hills Motorway achieving Final Completion, Construction Completion of Stage 4A and correction of all Defects in accordance with clause 11.";*

30. Clause 2.5 of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

**"2.5 Access by RMS**

*Up to and including the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A, RMS's Representative and any person authorised by RMS will:*

- (a) subject to normal safety and security constraints, have the right of access during business hours or on reasonable notice (except in the case of an emergency, when the right of access will be immediate) to:*
  - (i) the Project Site and the Temporary Areas; and*
  - (ii) all other areas relevant to Hills Motorway's Work; and*
- (b) be entitled to exercise this right of access for the purposes of:*
  - (i) observing progress in Hills Motorway's Work and monitoring compliance by Hills Motorway of its obligations under the M2 Upgrade Project Deed; and*
  - (ii) exercising any right or performing any obligation which RMS has under any Project Document.";*

31. Clause 2.9(a) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

*"(a) Each of the entities constituting Hills Motorway warrants to RMS that:*

- (i) subject to clause 2.9(a)(ii), prior to the date of the M2 Upgrade Project Deed it:*
  - A. examined the M2 Upgrade Project Deed, the Project Site and the Temporary Areas and their surroundings and any other information that was made available in writing by RMS, or any other person on RMS's behalf, to Hills Motorway for the purpose of submitting a proposal for the Project;*
  - B. examined, and relied solely upon its own assessment, skill, expertise and enquiries in respect of, all information relevant to the risks, contingencies and other circumstances having an effect on its proposal for the Project and its obligations under the M2 Upgrade Project Deed;*
  - C. satisfied itself as to the correctness and sufficiency of its proposal and that it has made adequate allowance for the costs of complying with all the obligations under the M2 Upgrade Project Deed and of all matters and things necessary for the due and proper performance and completion of Hills Motorway's Work;*
  - D. informed itself of all matters relevant to the employment of labour at the Project Site and the Temporary Areas and all industrial matters relevant to the Project Site, the Temporary Areas and Hills Motorway's Work; and*
  - E. was given the opportunity to itself undertake, and to request others to undertake, tests, enquiries and*

*investigations for design purposes and otherwise and for this purpose was given access to such parts of the Project Site and Temporary Areas as it required; and*

(ii) *in connection with each of Stage 3A and Stage 4A, prior to the date of the On-Ramp Amending Deed it:*

A. *examined the M2 Upgrade Project Deed, the Project Site and the Temporary Areas and their surroundings and any other information that was made available in writing by RMS, or any other person on RMS's behalf, to Hills Motorway for the purpose of submitting a proposal for Stage 3A and Stage 4A;*

B. *examined, and relied solely upon its own assessment, skill, expertise and enquiries in respect of, all information relevant to the risks, contingencies and other circumstances having an effect on its proposal for Stage 3A and Stage 4A and its obligations under the M2 Upgrade Project Deed;*

C. *satisfied itself as to the correctness and sufficiency of its proposal and that it has made adequate allowance for the costs of complying with all the obligations under the M2 Upgrade Project Deed and of all matters and things necessary for the due and proper performance and completion of Hills Motorway's Work comprising Stage 3A and Stage 4A;*

D. *informed itself of all matters relevant to the employment of labour at the Project Site and the Temporary Areas and all industrial matters relevant to the Project Site, the Temporary Areas and Hills Motorway's Work comprising Stage 3A and Stage 4A; and*

E. *was given the opportunity to itself undertake, and to request others to undertake, tests, enquiries and investigations for design purposes and otherwise and for this purpose was given access to such parts of the Project Site and Temporary Areas as it required.";*

32. Clause 2.10(d) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

*"(d) Hills Motorway accepts all responsibility for:*

*(i) the feasibility and fitness for purpose of the Concept Design and the On-Ramp Concept Design; and*

*(ii) the constructability of the Concept Design and the On-Ramp Concept Design,*

*having regard to the physical conditions and characteristics of the Project Site and any Extra Land.";*

33. Clause 2.11(g) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

*"(g) If Hills Motorway (or the Contractor) is directed, ordered or required to cease to perform Hills Motorway's Work as referred to in clause 2.11(e), then:*

*(i) subject to clause 2.11(h), RMS will pay Hills Motorway the reasonable costs and expenses directly incurred by:*

*A. the Contractor (excluding any amounts payable by the Contractor to Hills Motorway, a Related Entity of either of the Company or the Trustee or a Related Entity of the Contractor, to the extent that Hills Motorway or the Related Entity is not engaged by the Contractor on an arm's length basis and on commercial terms); and*

*B. Hills Motorway (without double counting) (excluding any amounts payable by Hills Motorway to the Contractor or a Related Entity of the Contractor),*

*arising directly as a result of such direction, order or requirement (including delay costs, to the extent only that such direction, order or requirement prevents Hills Motorway from achieving Construction Completion of Stage 3 by the Date for Construction Completion of Stage 3 or Construction Completion of Stage 3A by the Date for Construction Completion of Stage 3A); and*

*(ii) Hills Motorway must:*

*A. take all reasonable steps to mitigate such costs and expenses;*

*B. for this purpose, comply with all reasonable directions of RMS concerning the Artefacts and the consequences thereof; and*

*C. ensure that the Contractor complies with the requirements of this clause 2.11(g)(ii).*

*For the purposes of clause 2.11(g)(i), reasonable costs and expenses includes any reasonable interest, fees and other amounts payable under the M2 Upgrade Debt Financing Documents or the M2 Upgrade LCR Subordinated Loan Agreement during the period of the delay."*

34. Clause 2.12(c) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

*(c) If Hills Motorway (or the Contractor) is directed, ordered or required to cease to perform Hills Motorway's Work as referred to in clause 2.12(a) then:*

*(i) subject to clause 2.12(d), RMS will pay Hills Motorway the reasonable costs and expenses directly incurred by:*

*A. the Contractor (excluding any amounts payable by the Contractor to Hills Motorway, a Related Entity of either of the Company or the Trustee or a Related Entity of the*

*Contractor, to the extent that Hills Motorway or the Related Entity is not engaged by the Contractor on an arm's length basis and on commercial terms); and*

*B. Hills Motorway (without double counting) (excluding any amounts payable by Hills Motorway to the Contractor or a Related Entity of the Contractor),*

*arising directly as a result of such direction, order or requirement (including delay costs, to the extent only that such direction, order or requirement prevents Hills Motorway from achieving Construction Completion of Stage 3 by the Date for Construction Completion of Stage 3 or Construction Completion of Stage 3A by the Date for Construction Completion of Stage 3A); and*

*(ii) Hills Motorway must:*

*A. take all reasonable steps to mitigate such costs and expenses;*

*B. for this purpose, comply with all reasonable directions of RMS concerning the Native Title Application and the consequences thereof; and*

*C. ensure that the Contractor complies with the requirements of this clause 2.12(c)(ii).*

*For the purposes of clause 2.12(c)(i), reasonable costs and expenses includes any reasonable interest, fees and other amounts payable under the M2 Upgrade Debt Financing Documents or the M2 Upgrade LCR Subordinated Loan Agreement during the period of the delay."*

35. Clause 2.13 of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

**"2.13 Contamination**

*In addition to the requirements of the Environmental Documents and without limiting clauses 2.9 and 2.10, Hills Motorway bears the risk of all Contamination in, under or around the Project Site, the Temporary Areas or any Extra Land which:*

*(a) subject to clause 2.13(a1), exists at the date of the M2 Upgrade Project Deed;*

*(a1) in respect of the Project Site, the Temporary Areas or any Extra Land which Hills Motorway accesses, uses or occupies solely in connection with Stage 3A or Stage 4A, exists at the date of the On-Ramp Amending Deed; or*

*(b) subject to clause 2.13(b1), otherwise occurs or arises after the date of the M2 Upgrade Project Deed; or*

*(b1) in respect of the Project Site, the Temporary Areas or any Extra Land which Hills Motorway accesses, uses or occupies solely in connection with Stage 3A or Stage 4A, otherwise occurs or arises after the date of the On-Ramp Amending Deed,*

*and:*

- (c) *Hills Motorway must dispose of, or otherwise deal with, such Contamination in accordance with Law and the Environmental Documents;*
- (d) *Hills Motorway must, to the extent required by Law, remediate the Project Site, the Temporary Areas and any Extra Land, to the extent it is in any way degraded by such Contamination (provided that (as between RMS and Hills Motorway) Hills Motorway is not required to rehabilitate any Extra Land or (without limiting Hills Motorway's obligation to carry out remediation or rehabilitation required by Law) the Temporary Areas to a standard which is better than the standard the land was in on the date Hills Motorway was granted access to that land or the standard required to achieve Construction Completion of the relevant Stage); and*
- (e) *each of the Company and the Trustee must indemnify RMS from and against any Claim or Loss (including in respect of third party claims against RMS or its Subcontractors) suffered or incurred by RMS arising out of or in any way in connection with Contamination referred to in clause 2.13(a), clause 2.13(a1) or clause 2.13(b) to the extent that such Contamination:*
  - (i) *is disturbed by the carrying out of its share of Hills Motorway's Work; or*
  - (ii) *otherwise occurs or arises out of or in connection with its share of Hills Motorway's Work, any act or omission of Hills Motorway or the M2 Upgrade.";*

36. Clause 3.5(a) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

*"(a) have its compliance with the Quality Plan, Environmental Management Plans, Occupational Health, Safety and Rehabilitation Management Plan and Work Health and Safety Management Plan audited at intervals not exceeding 6 months during Hills Motorway's Work at its cost by an independent auditor who is acceptable to RMS's Representative."*

37. Clause 4.1(b) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

*"(b) The Parties acknowledge and agree that nothing in the M2 Upgrade Project Deed will limit RMS's right to comply with the RMS Conditions in a varied or changed manner which is consistent with the Project Approval and such that no approval is required to the modification under the EP&A Act (**Consistency Change**) except to the extent that the effect of such a Consistency Change will prevent Hills Motorway from achieving Construction Completion of Stage 3 by the Date for Construction Completion of Stage 3 or Construction Completion of Stage 3A by the Date for Construction Completion of Stage 3A. For the avoidance of doubt, this clause does not limit the operation of clause 4.2(b).";*

38. Clause 4.2(a) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

*"(a) Notwithstanding any review of any aspect of the design or construction of the Project Works or the Temporary Works by RMS or any other Authority, each of the Company and the Trustee warrants to RMS that the Concept Design, the On-Ramp Concept Design and the Scope of Works and Technical Criteria comply with the Project Approval.";*

39. Clause 4.3(b) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

(b) *If Hills Motorway or the Contractor is ordered by a court to cease to perform its obligations under the M2 Upgrade Project Deed (or to change the way it does so) as referred to in clause 4.3(a), then:*

(i) *subject to clause 4.3(c), RMS must pay Hills Motorway the reasonable costs and expenses directly incurred by:*

A. *the Contractor (excluding any amounts payable by the Contractor to Hills Motorway, a Related Entity of either of the Company or the Trustee or a Related Entity of the Contractor, to the extent that either of the Company or the Trustee or the Related Entity is not engaged by the Contractor on an arm's length basis and on commercial terms); and*

B. *Hills Motorway (without double-counting) (excluding any amounts payable by Hills Motorway to the Contractor, a Related Entity of Hills Motorway or a Related Entity of the Contractor),*

*arising directly as a result of a court order referred to in clause 4.3(a) (including delay costs, to the extent only that such court order prevents Hills Motorway from achieving Construction Completion of Stage 3 by the Date for Construction Completion of Stage 3 or Construction Completion of Stage 3A by the Date for Construction Completion of Stage 3A); and*

(ii) *Hills Motorway must:*

A. *take all reasonable steps to mitigate such costs and expenses;*

B. *for this purpose, comply with all reasonable directions of RMS concerning the legal challenge and consequences thereof; and*

C. *ensure that the Contractor complies with the requirements of this clause 4.3(b)(ii).*

*For the purposes of clause 4.3(b)(i), reasonable costs and expenses includes any reasonable interest, fees or other amounts payable under the M2 Upgrade Debt Financing Documents or the M2 Upgrade LCR Subordinated Loan Agreement during the period of the delay."*

40. Clause 5.5(a) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

"(a) *Hills Motorway must convene meetings on the Project Site at fortnightly intervals until the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A.*";

41. Clause 5.6(c) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

"(c) *The Project Control Group will meet monthly until the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A or at such other regular interval as RMS and Hills Motorway agree in writing.*";

42. Clause 5.8(a) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

"(a) *the progress of the Project Works and the Temporary Works in relation to the Overall D&C Programs and the Subsidiary D&C Programs and the performance of the Contractor and its Subcontractors until the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A.*";

43. Clause 5.9(a)(i) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

"(i) *on a regular monthly basis until the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A or at such other regular period as RMS and Hills Motorway agree in writing; and*";

44. Clause 5.11 of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

**"5.11 Programming and Stages**

(a) *Within 28 days of the Satisfaction Date, Hills Motorway must prepare and submit to the Independent Verifier and RMS's Representative subsidiary programs for all design and construction activities (including procurement of goods and materials) in respect of Stage 1, Stage 2 and Stage 3 (**Upgrade Program**).*

(a1) *Within 20 Business Days of the On-Ramp D&C Contract being executed and becoming unconditional, Hills Motorway must prepare and submit to the Independent Verifier and RMS's Representative subsidiary programs for all design and construction activities (including procurement of goods and materials) in respect of Stage 3A (**Subsidiary D&C (On-Ramp) Program**).*

(b) *The Subsidiary D&C Programs must:*

- (i) *be based upon the applicable Overall D&C Program;*
- (ii) *contain the details required by section 24.2 of the Company Documentation Schedule; and*
- (iii) *contain the details which RMS's Representative reasonably requires.*

(c) *The Overall D&C Programs and all Subsidiary D&C Programs must be:*

- (i) *reviewed and updated on a monthly basis to take into account changes to Hills Motorway's program for the Stages to which each Overall D&C Program or Subsidiary D&C Program relates and delays to those Stages which may have occurred; and*
- (ii) *given to the Independent Verifier and RMS's Representative with the reports required by section 24.1.1 of the Company Documentation Schedule in both hard copy form and electronic form approved by RMS.*



- (d) *Any review of or comments upon a program (including the Subsidiary D&C Programs) by RMS will not:*
  - (i) *relieve Hills Motorway from or alter its liabilities or obligations under the M2 Upgrade Project Deed;*
  - (ii) *evidence or constitute an extension of time or a direction by RMS's Representative to accelerate, disrupt, prolong or vary any, or all, of Hills Motorway's Work; and*
  - (iii) *affect the time for performance of RMS's obligations under the M2 Upgrade Project Deed, including obliging RMS to do anything earlier than is necessary to enable Hills Motorway to achieve Construction Completion of any Stage by the Date for Construction Completion of that Stage or Final Completion by the Date for Final Completion.*
- (e) *If Hills Motorway chooses to compress Hills Motorway's Work or otherwise accelerate progress:*
  - (i) *RMS will not be obliged to take any action to assist or enable Hills Motorway to achieve Construction Completion of any Stage before the Date for Construction Completion of that Stage or Final Completion before the Date for Final Completion; and*
  - (ii) *the time for the carrying out of RMS's obligations will not be affected."*

45. Clause 5.12 of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

**"5.12 Project Plans**

- (a) *Hills Motorway must prepare the Upgrade Project Plans and the On-Ramp Project Plans.*
- (b) *Each Project Plan must:*
  - (i) *where an initial plan exists for the relevant Project Plan and is contained in an Appendix to the Scope of Works and Technical Criteria, be based upon that initial plan; and*
  - (ii) *whether or not an initial plan exists for the relevant Project Plan, be prepared and further developed in accordance with this clause 5.12 and section 2.12 of the Scope of Works and Technical Criteria.*
- (c) *Each Project Plan must be initially submitted to the Independent Verifier and RMS's Representative within the time period specified in Appendix 14 to the Scope of Works and Technical Criteria, containing the contents specified in Appendix 14 of the Scope of Works and Technical Criteria for the initial submission.*
- (d) *Hills Motorway acknowledges and agrees that:*
  - (i) *an intended purpose of each Project Plan is for Hills Motorway to provide a detailed description of how Hills Motorway intends to*

*carry out Hills Motorway's Work in accordance with the requirements of the M2 Upgrade Project Deed with respect to the subject matter of each Project Plan; and*

*(ii) the Project Plans will require ongoing development, amendment and updating throughout the duration of Hills Motorway's Work to take into account:*

*A. Changes;*

*B. changes in Law;*

*C. the commencement of new phases or stages of design and construction to which those Project Plans relate as shown in the Overall D&C Programs and the Subsidiary D&C Programs (as relevant);*

*D. those events or circumstances:*

*1) expressly identified in Appendix 14 to the Scope of Works and Technical Criteria for each Project Plan; or*

*2) specified in the Scope of Works and Technical Criteria; and*

*E. any other events or circumstances which occur or come into existence and which have, or may have, any effect on the manner in which Hills Motorway carries out Hills Motorway's Work the subject of those Project Plans.*

*(e) RMS's Representative may:*

*(i) review any Project Plan submitted under this clause 5.12; and*

*(ii) if the Project Plan submitted does not comply with the M2 Upgrade Project Deed, notify Hills Motorway of that within 15 Business Days of the submission of the Project Plan.*

*(f) If Hills Motorway receives a notice under clause 5.12(e)(ii), Hills Motorway must promptly submit an amended Project Plan to the Independent Verifier and RMS's Representative.*

*(g) RMS's Representative owes no duty to Hills Motorway to review any Project Plan submitted by Hills Motorway for errors, omissions or compliance with the M2 Upgrade Project Deed.*

*(h) No review of, comments upon, or notice in respect of, any Project Plan or any other act or omission of RMS's Representative (including a request made under clause 5.12(j)) about any Project Plan will lessen or otherwise affect:*

*(i) Hills Motorway's liabilities or responsibilities under the M2 Upgrade Project Deed or otherwise according to law; or*

*(ii) RMS's rights against Hills Motorway, whether under the M2 Upgrade Project Deed or otherwise according to law.*

- (i) *Each of the Company and the Trustee:*
- (i) *warrants to RMS that each Project Plan will be fit for its intended purposes as specified in, or ascertainable from the Project Documents and the Environmental Documents (including for the purposes of enabling the Company and the Trustee to design, construct, operate, maintain and repair the M2 Upgrade and perform their other obligations under the M2 Motorway Project Deed); and*
- (ii) *must continue to develop and promptly amend or update the Project Plans:*
- A. *to take into account:*
- 1) *the circumstances and events referred to in clause 5.12(d)(ii) as those circumstances and events occur or come into existence; and*
- 2) *any breach or potential breach of the warranty referred to in clause 5.12(i)(i); and*
- B. *as otherwise specified in the Scope of Works and Technical Criteria, including Appendix 14 to the Scope of Works and Technical Criteria,*
- and promptly submit each further Project Plan to the Independent Verifier and RMS's Representative as it is further developed, amended or updated.*
- (j) *If RMS's Representative believes that:*
- (i) *any Project Plan does not comply with the requirements of the M2 Upgrade Project Deed; or*
- (ii) *Hills Motorway has not further developed, updated or amended any Project Plan in accordance with the requirements of clause 5.12(i),*
- RMS's Representative may by written notice request that Hills Motorway further develop, update or amend the Project Plan specifying:*
- (iii) *the reasons why such development, updating or amending is required; and*
- (iv) *the time within which such development, updating or amending must occur (which must be reasonable, having regard to the amount of work required),*
- and Hills Motorway must:*
- (v) *further develop, update or amend the Project Plan as requested by RMS's Representative; and*
- (vi) *submit the further developed, updated or amended Project Plan to the Independent Verifier and RMS's Representative within the time specified under clause 5.12(j)(iv).*

- (k) *Hills Motorway:*
  - (i) *must comply with each Project Plan which has been submitted to RMS's Representative under this clause 5.12 and in respect of which RMS's Representative has not given a notice under clause 5.12(e); and*
  - (ii) *agrees that compliance by it with any Project Plan will not in any way lessen or otherwise affect:*
    - A. *its liabilities or responsibilities under the M2 Upgrade Project Deed or otherwise according to law; or*
    - B. *RMS's rights against it, whether under the M2 Upgrade Project Deed or otherwise according to law.*
- (l) *Hills Motorway must comply with the restrictions upon the carrying out of Hills Motorway's Work specified in Appendix 14 to the Scope of Works and Technical Criteria.*
- (m) *To the extent they are relevant to operation, maintenance, repair and reinstatement of the M2 Upgrade during the Term, all Project Plans must be incorporated into the Maintenance Manual.*

46. A new clause 5.18(c) is inserted immediately after clause 5.18(b) of Annexure A to the Upgrade Project Deed as follows:

*"(c) This clause 5.18 only applies to works procured by Hills Motorway under the D&C Contract."*

47. New clause 5.18A, 5.18B and 5.18C are inserted immediately after clause 5.18 of Annexure A to the Upgrade Project Deed as follows:

***"5.18A Work Health and Safety***

- (a) *This clause 5.18A does not apply to works procured by Hills Motorway under the D&C Contract.*
- (b) *In this clause 5.18A, the terms "construction project", "construction work", "principal contractor" and "workplace" have the same meaning given to those terms under the WHS Legislation. For the purposes of the WHS Legislation and this deed, the work under this deed and the work under any Contract or Subcontract is taken to be part of the same "construction project".*
- (c) *Without limiting the Company's obligations under any other provision of this deed:*
  - (i) *to the extent that the work under this deed or any Contract or Subcontract includes construction work, RMS:*
    - A. *engages the Company as the principal contractor for the work under this deed, the Contract and the Subcontract; and*
    - B. *authorises the Company to have management and control of each workplace at which the work under this deed, the*

*Contract and the Subcontract is to be carried out and to discharge the duties of a principal contractor under the WHS Legislation; and*

- (ii) the Company accepts the engagement as principal contractor and agrees to discharge the duties imposed on a principal contractor by the WHS Legislation,*

*and the Company's engagement and authorisation as a principal contractor will continue:*

- (iii) subject to clause 5.18A(c)(iv), until the Date of Construction Completion of Stage 4A (unless sooner revoked by RMS); and*
- (iv) in respect of any rectification work carried out under clause 11 that is construction work, during the period any such work is carried out.*

*(d) The Company must:*

- (i) if any Law (including a Law in the state or territory in which the works are situated or work under this deed, the Contract or a Subcontract is carried out) requires that:*

*A. a person:*

- 1) be authorised or licensed (in accordance with the WHS Legislation) to carry out any work at that workplace, that person is so authorised or licensed and complies with any conditions of such authorisation or licence; and/or*
- 2) has prescribed qualifications or experience or, if not, is to be supervised by a person who has prescribed qualifications or experience (as defined in the WHS Legislation), that person has the required qualifications or experience or is so supervised; or*

*B. a workplace, plant or substance (or design) or work (or class of work) be authorised or licensed, that workplace, plant or substance or work is so authorised or licensed;*

- (ii) not direct or allow a person to carry out work or use plant or substance at a workplace unless the requirements of clause 5.18A(d)(i) are met (including any requirement to be authorised, licensed, qualified or supervised); and*
- (iii) if requested by RMS or required by the WHS Legislation, produce evidence of any approvals, certificates, authorisations, licences, prescribed qualifications or experience or any other information relevant to work, health and safety (as the case may be) to the satisfaction of RMS before the Company, the Contractor or the Subcontractor (as the case may be) commences such work.*

## **5.18B Work Health and Safety**

- (a) *This clause 5.18B does not apply to works procured by Hills Motorway under the D&C Contract.*
- (b) *Hills Motorway must carry out Hills Motorway's Work:*
- (i) *safely and in a manner that does not put the health and safety of persons at risk; and*
  - (ii) *in a manner that protects property,*
- and if RMS reasonably considers that there is a risk to the health and safety of people or damage to property arising from Hills Motorway's Work, RMS may direct Hills Motorway to change its manner of working or to cease working.*
- (c) *Hills Motorway must:*
- (i) *ensure that in carrying out Hills Motorway's Work under this deed:*
    - A. *it complies with all Laws and other requirements of this deed for work, health, safety and rehabilitation management;*
    - B. *all Contractors and Subcontractors comply with their obligations referred to in this deed and under the WHS Legislation; and*
    - C. *it complies with its obligation under the WHS Legislation to consult, cooperate and coordinate activities with all other persons who have a work, health and safety duty in relation to the same matter;*
  - (ii) *notify RMS immediately (and in any event, within 12 hours of such matter arising) of all work health, safety and rehabilitation matters arising out of, or in any way in connection with, Hills Motorway's Work;*
  - (iii) *institute systems to obtain written assurances from all Contractors and Subcontractors about their ongoing compliance with WHS Legislation including the due diligence obligations contained therein;*
  - (iv) *provide written assurances referred to in clause 5.18B(c)(iii), together with written assurances from Hills Motorway about Hills Motorway's ongoing compliance with the WHS Legislation, to RMS;*
  - (v) *provide RMS with a written report of all work, health, safety and rehabilitation matters (including matters concerning or arising out of, or in connection with, clauses 5.18A and 5.18B) or any other relevant matters as RMS may require from time to time;*
  - (vi) *cooperate with the Contractors and all Subcontractors and RMS to ensure that all parties are able to comply with their respective obligations under the WHS Legislation;*
  - (vii) *exercise a duty of the utmost good faith to RMS in carrying out Hills Motorway's Works to enable RMS to discharge its duties under the WHS Legislation;*

- (viii) *ensure that it does not do anything or fail to do anything that would cause RMS to be in breach of the WHS Legislation; and*
  - (ix) *ensure that each Contract and Subcontract includes provisions equivalent to clauses 5.18A(d) and 5.18B.*
- (d) *Without limiting Hills Motorway's obligations under this deed, insofar as Hills Motorway, in carrying out Hills Motorway's Work, is:*
- (i) *a person conducting a business or undertaking that designs plant, substances or structures to whom section 22 of the WHS Act applies;*
  - (ii) *a person conducting a business or undertaking that manufactures plant, substances or structures to whom section 23 of the WHS Act applies;*
  - (iii) *a person conducting a business or undertaking that imports plant, substances or structures to whom section 24 of the WHS Act applies;*
  - (iv) *a person conducting a business or undertaking that supplies plant, substances or structures to whom section 25 of the WHS Act applies;*  
*or*
  - (v) *a person conducting a business or undertaking that installs, constructs or commissions plant or structures to whom section 26 of the WHS Act applies,*

*Hills Motorway must comply with the applicable obligations under the WHS Legislation.*

**5.18C Work Health and Safety Management Plans**

- (a) *This clause 5.18C does not apply to works procured by Hills Motorway under the D&C Contract.*
- (b) *Hills Motorway acknowledges that provision of the Work Health and Safety Management Plan is a condition precedent to RMS's obligations under clause 2.1 of this Annexure A."*

48. Clause 6.1(a)(i)A of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

*"A. the Concept Design and the On-Ramp Concept Design have been prepared by Hills Motorway and will be fit for their intended purpose as specified in, or ascertainable from, the Project Documents and the Environmental Documents (including for the purposes of enabling Hills Motorway to design, construct, operate, maintain and repair the M2 Upgrade and perform its other obligations under the M2 Motorway Project Deed);";*

49. Clause 6.1(a)(i)B of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

*"B. it has satisfied itself that there are no ambiguities or inconsistencies in or between the Concept Design, the On-Ramp Concept Design, the Scope of Works and Technical Criteria and the Environmental Documents;" ;*

50. Clause 6.1(a)(iv) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

*"(iv) the Project Works will:*

- A. be completed in accordance with, and satisfy the requirements of, the M2 Upgrade Project Deed;*
- B. in respect of the Project Works comprising Stages 1, 2 and 3, upon Final Completion, be fit for their intended purposes as specified in, or ascertainable from, the Project Documents and the Environmental Documents (including for the purposes of enabling Hills Motorway to design and construct and the Company to operate, maintain and repair the M2 Upgrade and perform its other obligations under the M2 Motorway Project Deed); and*
- C. in respect of the Project Works comprising Stage 3A, upon Construction Completion of Stage 4A, be fit for their intended purposes as specified in, or ascertainable from, the Project Documents and the Environmental Documents (including for the purposes of enabling Hills Motorway to design and construct and the Company to operate, maintain and repair the M2 Upgrade and perform its other obligations under the M2 Motorway Project Deed).";*

51. A new clause 6.4 is inserted immediately after clause 6.3 of Annexure A to the Upgrade Project Deed as follows:

**"6.4 On-Ramp Concept Design**

*(a) Hills Motorway acknowledges that prior to the date of the On-Ramp Amending Deed it prepared the On-Ramp Concept Design. Hills Motorway agrees that it bears absolutely all risks (except as otherwise expressly provided in the M2 Upgrade Project Deed) howsoever they may arise as a result of the use by Hills Motorway of, or the reliance by Hills Motorway upon, the On-Ramp Concept Design in performing Hills Motorway's Work and that such use and reliance will not affect any of its obligations under the M2 Upgrade Project Deed.*

*(b) Without in any way limiting this clause 6, and irrespective of any assumptions, projections, estimates, contingencies or otherwise that the Company or the Trustee may have made in relation to any of the matters set out in clauses 6.4(a) and 6.4(b), except as otherwise expressly provided in the M2 Upgrade Project Deed, Hills Motorway is responsible for and assumes the risk of all increased costs and any damage, expense, loss, liability or delay it suffers or incurs arising out of or in connection with:*

- (i) the design and construction of the Project Works and the Temporary Works generally in accordance with the On-Ramp Concept Design costing more or taking longer than anticipated; and*
- (ii) any differences between the Project Works or the Temporary Works which Hills Motorway is required to design or construct (ignoring for this purpose any differences which are the subject of a Change Order issued under clause 7.1) and the On-Ramp Concept Design including:*



- A. *differences necessitated by the physical conditions (including sub-surface conditions) or characteristics of the Project Site, the Temporary Areas, any Extra Land, the Environment or their surroundings; and*
  - B. *differences required to ensure that the Project Works and the Temporary Works will be fit for their intended purposes as specified in, or ascertainable from, the Project Documents and the Environmental Documents (including for the purposes of enabling Hills Motorway to design, construct, operate, maintain and repair the M2 Upgrade and perform its other obligations under the M2 Motorway Project Deed) and satisfy the requirements of the M2 Upgrade Project Deed.*
- (c) *Each of the Company and the Trustee warrants to RMS that the On-Ramp Concept Design has been prepared by Hills Motorway and that:*
- (i) *it remains responsible for ensuring that its share of the Project Works and the Temporary Works will satisfy the requirements of the M2 Upgrade Project Deed despite the On-Ramp Concept Design;*
  - (ii) *if its share of the Project Works and the Temporary Works are designed and constructed in accordance with the On-Ramp Concept Design, its share of the Project Works and Temporary Works will satisfy the requirements of the M2 Upgrade Project Deed but nothing in this clause 6.4(c)(ii) affects or limits clause 6.4(a), which will prevail to the extent of any inconsistency; and*
  - (iii) *Hills Motorway will carry out and complete Hills Motorway's Work in accordance with the On-Ramp Concept Design but nothing in this clause 6.4(c)(iii) affects or limits clause 6.4(a), which will prevail to the extent of any inconsistency.*
- (d) *The Parties agree that, except to the extent required by the Scope of Works and Technical Criteria, nothing in the M2 Upgrade Project Deed will require the rectification of any defect in the M2 Motorway.";*

52. Clause 7.1(b)(ii) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

*"(ii) prevent Hills Motorway from achieving Construction Completion of Stage 3 by the Date for Construction Completion of Stage 3 or Construction Completion of Stage 3A by the Date for Construction Completion of Stage 3A."*

53. Clause 7.2(a)(iv) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

*"(iv) the effect of the proposed Change on the M2 Motorway including the operation, maintenance and repair of the M2 Motorway, both during the period of carrying out of Hills Motorway's Work and after the later to occur of Final Completion and Construction Completion of Stage 4A;"*

54. Clause 7.3(c) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

- (c) *Where an amount is payable to RMS pursuant to clause 7.3(b):*
- (i) *to the extent that it relates to Hills Motorway's Work, this may be set off against Change Costs in respect of Hills Motorway's Work payable by RMS to Hills Motorway under clause 7.3(a) or, where this is not set-off, it must be paid by Hills Motorway to RMS progressively within 10 Business Days after each month in which the relevant work which has been deleted or omitted would have been undertaken but for the Change; or*
  - (ii) *to the extent that it relates to the operation, maintenance and repair of the M2 Motorway or the Project Works, Hills Motorway must pay this to RMS in the manner and at the time as agreed between RMS and Hills Motorway or, to the extent that they fail to agree, as determined by an expert who must in making the determination ensure that the timing of the payment will not have an adverse impact upon the ability which, prior to the change:*
    - A. *the Borrower had to repay the interest and amortisation payments owing under the M2 Upgrade Debt Financing Documents, M2 Upgrade LCR Subordinated Loan Agreement and the Debt Documentation on the dates on which such amounts are due to be repaid thereunder;*
    - B. *the Company and the Trustee had to give the M2 Upgrade Equity Investors (treated as if all those M2 Upgrade Equity Investors are all Notional Initial M2 Upgrade Equity Investors) the lower of:*
      - 1) *the M2 Upgrade Equity Return they would have received if the Change had not been made; and*
      - 2) *the M2 Upgrade Base Case Equity Return; and*
    - C. *the Company and the Trustee had to give the LCR Equity Investors (treated as if all those LCR Equity Investors are all Notional Initial LCR Equity Investors) the lower of:*
      - (1) *the LCR Equity Return they would have received if the Change had not been made; and*
      - (2) *the LCR Base Case Equity Return."*

55. Clause 8.7 of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

**"8.7 Notice of accidents**

*Where Hills Motorway becomes aware before the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A of any accidents involving damage to persons or property occurring upon or in the vicinity of the Project Site, the Temporary Areas or any Extra Land, Hills Motorway must:*

- (a) promptly give RMS's Representative a detailed written report of the accident as required by section 8.18 of the Scope of Works and Technical Criteria; and
- (b) otherwise comply with Law, the Occupational Health, Safety and Rehabilitation Management Plan and the Work Health and Safety Management Plan.";

56. Clause 8.9(f) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

"(f) The:

- (i) subject to clause 8.9(f)(ii), completion of all Property Works under this clause 8.9 including all work under clause 8.9(e) but excluding the rehabilitation of site compounds is a condition precedent to Construction Completion of Stage 3;
- (ii) completion of all Property Works in connection with Stage 3A under this clause 8.9 including all work in connection with Stage 3A under clause 8.9(e) but excluding the rehabilitation of site compounds in connection with Stage 3A is a condition precedent to Construction Completion of Stage 3A;
- (iii) subject to clause 8.9(f)(iv), provision of all certificates or statements (as the case may be) to RMS's Representative under clause 8.9(a)(ii) is a condition precedent to Final Completion; and
- (iv) provision of all certificates or statements (as the case may be) in connection with Stage 3A to RMS's Representative under clause 8.9(a)(ii) is a condition precedent to Construction Completion of Stage 4A.";

57. Clause 8.10(c) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

"(c) All signs erected in accordance with this clause 8.10 must be removed, and any damage caused must be made good, by Hills Motorway as a condition precedent to:

- (i) in respect of signs erected in connection with Stage 1, Stage 2 or Stage 3, as a condition precedent to Construction Completion of Stage 3; and
- (ii) in respect of signs erected in connection with Stage 3A, as a condition precedent to Construction Completion of Stage 3A.";

58. Clause 9.2 of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

**"9.2 Completion**

*Hills Motorway must use its best endeavours to achieve:*

- (a) Construction Completion of Stage 3 by the Date for Construction Completion of Stage 3;

- (b) *Construction Completion of Stage 3A by the Date for Construction Completion of Stage 3A;*
- (c) *Final Completion by the Date for Final Completion; and*
- (d) *Construction Completion of Stage 4A by the Date for Construction Completion of Stage 4A.";*

59. Clause 11.4 of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

**"11.4 M2 Upgrade**

*Subject to clauses 11.5, 11.6 and 11.7, each Stage of the Project Works has:*

- (a) *in relation to Stage 1, Stage 2 and Stage 3, a Defects Correction Period which begins on the Date of Construction Completion of that Stage and ends at the expiry of 12 months after the Date of Final Completion;*
- (b) *in relation to Stage 3A, a Defects Correction Period which begins on the Date of Construction Completion of Stage 3A and ends at the expiry of 12 months after the Date of Construction Completion of Stage 4A; and*
- (c) *a further Defects Correction Period in respect of any work the subject of a direction under clause 11.2(b) during the Defects Correction Period for that Stage which begins on the date of the correction of the Defect (or part of it) and ends on the date which is 12 months after the date of the correction of the Defect (or the part of it).";*

60. Clause 11.7 of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

**"11.7 Property Works**

*Each discrete part of the Property Works has:*

- (a) *in respect of Stage 1, Stage 2 and Stage 3, a Defects Correction Period which begins upon the later of:*
  - (i) *the completion of that discrete part of the Property Works; and*
  - (ii) *the submission by Hills Motorway to RMS's Representative and the Independent Verifier of a certificate or signed statement (as the case may be) under clause 8.9(a)(ii),*

*and which expires 12 months after the Date of Final Completion;*
- (b) *in respect of Stage 3A, a Defects Correction Period which begins upon the later of:*
  - (i) *the completion of that discrete part of the Property Works; and*
  - (ii) *the submission by Hills Motorway to RMS's Representative and the Independent Verifier of a certificate or signed statement (as the case may be) under clause 8.9(a)(ii),*

*and which expires 12 months after the Date of Construction Completion of Stage 4A; and*

- (c) *a further Defects Correction Period of 12 months in respect of any work the subject of a direction under clause 11.2(b) (relating to the discrete part of the Property Works) during the Defects Correction Period, which begins on the date of correction of the Defect (or part of it).";*

61. A new clause 12.1A is inserted after clause 12.1 of Annexure A to the Upgrade Project Deed as follows:

***"12.1A Provision of Stage 4A Security Bond***

*As a condition precedent to Construction Completion of Stage 4A, Hills Motorway must give RMS an unconditional undertaking for \$200,000 in aggregate which must be:*

- (a) *in the form of Schedule 1;*
- (b) *in favour of RMS; and*
- (c) *where required, duly stamped and given by a bank licensed in Australia satisfactory to RMS with a credit rating of no less than A- (S&P) with an address for service in Sydney.";*

62. Clause 12.2 of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

***"12.2 Release of Security Bond***

*Subject to its rights to have recourse to the unconditional undertaking, RMS must within 20 Business Days after the later of:*

- (a) *in relation to the unconditional undertaking referred to in clause 12.1:*
- (i) *the date on which the last Defects Correction Period applicable to the Project Works comprising Stage 1, Stage 2, Stage 3 or Stage 4 expires; and*
- (ii) *receipt by RMS of each release or statement required pursuant to clause 2.4(a)(ii) in respect of Extra Land required by Hills Motorway in connection with Stage 1, Stage 2, Stage 3 or Stage 4; and*
- (b) *in relation to the unconditional undertaking referred to in clause 12.1A:*
- (i) *the date on which the last Defects Correction Period applicable to the Project Works comprising Stage 3A or Stage 4A expires; and*
- (ii) *receipt by RMS of each release or statement required pursuant to clause 2.4(a)(ii) in respect of Extra Land required by Hills Motorway in connection with Stage 3A or Stage 4A,*

*release the unconditional undertaking provided by Hills Motorway under clauses 12.1 and 12.1A.";*

63. Clause 12.5 of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

**"12.5 Replacement Security Bond**

- (a) *If RMS has recourse to any Security Bond (or part thereof) provided under this clause 12 and RMS does not use all of the proceeds of the Security Bond (or part thereof), then RMS will refund the unused portion of the Security Bond (or part thereof) upon receipt by RMS of an unconditional undertaking which satisfies the requirements of:*
- (i) *in relation to a Security Bond provided under clause 12.1, clauses 12.1(a), 12.1(b) and 12.1(c); and*
  - (ii) *in relation to a Security Bond provided under clause 12.1A, clauses 12.1A(a), 12.1A(b) and 12.1A(c),*
- for the amount to be refunded.*
- (b) *At any time following provision of a Security Bond to RMS under this clause 12, Hills Motorway may provide RMS with a replacement unconditional undertaking which satisfies the requirements of:*
- (i) *in relation to a Security Bond provided under clause 12.1, clauses 12.1(a), 12.1(b) and 12.1(c); and*
  - (ii) *in relation to a Security Bond provided under clause 12.1A, clauses 12.1A(a), 12.1A(b) and 12.1A(c),*
- for the amount of the previously provided Security Bond (**Replacement Security Bond**). Upon receipt of RMS of any Replacement Security Bond, RMS will return the relevant Security Bond to Hills Motorway."*

64. A new clause 12.6 is inserted after clause 12.5 of Annexure A to the Upgrade Project Deed as follows:

**"12.6 Proceeds of Security Bond**

*RMS may only use the proceeds of the unconditional undertaking:*

- (a) *referred to in clause 12.1 to reimburse RMS for any Loss for which Hills Motorway is liable in connection with Stage 1, Stage 2, Stage 3 or Stage 4; and*
- (b) *referred to in clause 12.1A to reimburse RMS for any Loss for which Hills Motorway is liable in connection with Stage 3A or Stage 4A."*

65. Clause 13(a) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

*"(a) Subject to clause 13(a1), as a condition precedent to Final Completion, the Company must update, develop and amend the Maintenance Manual to incorporate the Maintenance Work associated with the M2 Upgrade and identify the methods, systems and procedures (which must comply with the Scope of Works and Technical Criteria) whereby Hills Motorway will operate, maintain and repair the M2 Upgrade in accordance with the requirements of the M2 Motorway Project Deed."*

66. A new clause 13(a1) is inserted after clause 13(a) of Annexure A to the Upgrade Project Deed as follows:

*"(a1) As a condition precedent to Construction Completion of Stage 4A, the Company must update, develop and amend the Maintenance Manual to incorporate the Maintenance Work associated with the M2 Upgrade comprised in Stage 3A and identify the methods, systems and procedures (which must comply with the Scope of Works and Technical Criteria) whereby Hills Motorway will operate, maintain and repair the M2 Upgrade comprised in Stage 3A in accordance with the requirements of the M2 Motorway Project Deed.";*

67. Clause 15.4(a)(i) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

*"(i) a contract works or construction risks policy of insurance for Stage 1, Stage 2 and Stage 3 and which is endorsed to cover Stage 3A:*

*A. in respect of the Project Works, the Temporary Works, the existing improvements on the Project Site or the Temporary Areas and all things brought on to the Project Site or the Temporary Areas by it, the Contractor, the On-Ramp D&C Contractor or any of their Subcontractors for the purpose of its share of Hills Motorway's Work; and*

*B. against such risks as are reasonably required by RMS and on the basis set out in Exhibit D to the M2 Upgrade Project Deed,*

*and:*

*C. up to the Date of Final Completion, for a sum insured of \$435 million plus an additional amount to cover the cost of demolition and removal of debris, fees for the project managers and other consultants, and an amount to cover additional costs and expenses to expedite the commencement or completion or repair; and*

*D. on and from the Date of Final Completion, for a sum insured of \$20 million plus an additional amount to cover the cost of demolition and removal of debris, fees for the project managers and other consultants, and an amount to cover additional costs and expenses to expedite the commencement or completion or repair, all in respect of Stage 3A only;"*

68. Clause 15.4(a)(iv) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

*"(iv) in respect of:*

*A. Stage 1, Stage 2, Stage 3 and Stage 4, project specific professional indemnity insurance for any breach of a duty owed in a professional capacity by Leighton Contractors, the Subcontractors and any of their sub-consultants and any of Hills Motorway's sub-consultants engaged in professional activities to perform Hills Motorway's Work for a minimum of \$50 million for any one claim; and*

*B. Stage 3A and Stage 4A, professional indemnity insurance for any breach of a duty owed in a professional capacity by the On-Ramp D&C Contractor, the Subcontractors and any of their sub-consultants and any of Hills Motorway's sub-consultants engaged in*

*professional activities to perform Hills Motorway's work for a minimum of \$20 million for any one claim;"*;

69. Clause 15.4(b) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

- "(b) The Company must maintain (or cause to be maintained) the insurances referred to in clause 15.4(a) until:*
- (i) in the case of the directors and officers liability insurance, the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A;*
  - (ii) in the case of:*
    - A. the professional indemnity insurance referred to in clause 15.4(a)(iv)A, 6 years after the expiry of the last Defects Correction Period applicable to either of Stage 1, Stage 2, Stage 3 or Stage 4; and*
    - B. the professional indemnity insurance referred to in clause 15.4(a)(iv)B, 6 years after the expiry of the last Defects Correction Period applicable to either Stage 3A or Stage 4A;*
  - (iii) in the case of the third party liability insurance policy, the expiration of the last Defects Correction Period; and*
  - (iv) in the case of the other insurances, the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A."*;

70. Clause 15.5 of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

***"15.5 General requirements***

- (a) All insurances which the Company is required to effect under this clause 15:*
- (i) must be effected with insurers approved by RMS (which approval will not be unreasonably withheld or delayed);*
  - (ii) must be on the terms required by this clause 15 and Exhibit D to the M2 Upgrade Project Deed and otherwise as approved by RMS (which approval will not be unreasonably withheld or delayed);*
  - (iii) must not contain any exclusion, endorsement or alteration, unless it is first approved in writing by RMS (which approval will not be unreasonably withheld or delayed);*
  - (iv) subject to clause 15.5(a)(ix), in the case of the insurances specified in clauses 15.4(a)(i), (ii), (iii), (vi) and (vii) must be in the joint names of Hills Motorway and RMS and such others as have an insurable interest under the Project Documents for their respective rights, interests and liabilities and in which the insurer waives all rights of subrogation which it may have or acquire against all or any of the persons comprising the insured;*



- (v) *in the case of the insurance specified in clause 15.4(a)(iv)A, must include a principal's indemnity endorsement in favour of Hills Motorway and RMS in a form approved by RMS;*
- (vi) *subject to clause 15.5(a)(x), must contain a term which requires the insurer to give RMS 20 Business Days written notice prior to:*
  - A. *the insurer giving Hills Motorway a notice of cancellation;*
  - B. *the insurer cancelling the policy on the request of Hills Motorway;*
  - C. *Hills Motorway allowing the policy to expire; or*
  - D. *the insurer giving Hills Motorway any other notice in respect of the policy;*
- (vii) *the insurances specified in clauses 15.4(a)(iii) must contain a cross liability clause:*
  - A. *in which the insurer agrees to waive all rights of subrogation or action that it may have or acquire against all or any of the persons comprising the insured; and*
  - B. *for the purposes for which the insurer accepts the term insured as applying to each of the persons comprising the insured as if a separate policy of insurance had been issued to each of them (subject always to the overall sum insured not being increased as a result);*
- (viii) *except in the case of the insurances specified in clauses 15.4(a)(iv), (v), (vi) and (viii), must be endorsed to note and allow Hills Motorway's obligations under clause 15.7, to the effect that compliance by Hills Motorway with the provisions of that clause will not prejudice Hills Motorway's or any other insured parties' rights to indemnity under the insurances;*
- (ix) *in the case of the insurances effected under clause 15.4(a)(vi) in respect of Stage 3A and Stage 4A, the insurance is not required to be in the joint names of Hills Motorway and RMS and such others as have an insurable interest under the Project Documents for their respective rights, interests and liabilities, but must contain a principal's indemnity endorsement in a form approved by RMS in favour of RMS, Hills Motorway and such others as have an insurable interest under the Project; and*
- (x) *in the case of insurances effected under clause 15.4(a)(iv)B, and clauses 15.4(a)(v) and 15.4(a)(vi) in respect of Stage 3A and Stage 4A, the requirements of clause 15.5(a)(vi) do not apply and Hills Motorway must give RMS written notice:*
  - A. *within 4 Business Days after Hills Motorway becoming aware of:*

1. *the insurer giving (or intending to give) Hills Motorway a notice of cancellation; or*

2. *the insurer giving (or intending to give) Hills Motorway any other notice in respect of the policy; and*

B. *within 20 Business Days prior to:*

1. *the insurer cancelling the policy on the request of Hills Motorway; or*

2. *Hills Motorway allowing the policy to expire.*

(b) *Hills Motorway must:*

(i) *give RMS certified copies of all:*

A. *policies except for the insurance referred to in clauses 15.4(a)(iv)B, and clauses 15.4(a)(v) and 15.4(a)(vi) in respect of Stage 3A and Stage 4A, where Hills Motorway must give RMS a certified copy of the certificate of currency only;*

B. *renewal certificates; and*

C. *endorsement slips,*

*as soon as it receives them from the insurer; and*

(ii) *have each policy under which there is more than one insured party endorsed to the effect that the insurer agrees that any act, error, omission, neglect, fraud, misrepresentation, misdescription, non-disclosure or breach of condition or warranty by any individual insured party shall not prejudice or invalidate the rights of the other parties comprising the insured who are themselves not guilty of such act, error, omission, neglect, fraud, misrepresentation, misdescription, non-disclosure or breach of condition or warranty."*

71. Clause 16.1(d)(i) of Annexure A to the Upgrade Project Deed is amended by deleting the character ":" and replacing it with the character ",";

72. Clause 16.1(g)(ii) of Annexure A to the Upgrade Project Deed is amended by deleting the word "sue" and replacing it with the word "use";

73. Clause 17.1(d) of Annexure A to the Upgrade Project Deed is amended by deleting the words "Upgrade Project" and replacing them with the word "Project";

74. Clause 17.2(a) of Annexure A to the Upgrade Project Deed is deleted and replaced with the following clause:

(a) *As soon as practicable, but no later than 20 Business Days after RMS receives a notice under clause 17.1(e), the Parties must enter into negotiations and thereafter negotiate in good faith to enable:*

- (i) *the Borrower to repay the interest and amortisation payments (and net interest rate management agreement payments, if any) that are or would have been owing under the M2 Upgrade Debt Financing Documents and the M2 Upgrade LCR Subordinated Loan Agreement were it not for the relevant event, omission or circumstance, on the dates on which such amounts are or would be due to be repaid thereunder (but not more than the amortisation payments contained in the M2 Upgrade Base Case Model and the LCR Base Case Model); and*
- (ii) *the Company and the Trustee to give:*
  - A. *the M2 Upgrade Equity Investors (treated as if those M2 Upgrade Equity Investors are all Notional Initial M2 Upgrade Equity Investors) the lower of:*
    - (1) *the M2 Upgrade Equity Return they would have received if the event or circumstance had not occurred; and*
    - (2) *the M2 Upgrade Base Case Equity Return; and*
  - B. *the LCR Equity Investors (treated as if those LCR Equity Investors are all Notional Initial LCR Equity Investors) the lower of:*
    - (1) *the LCR Equity Return they would have received if the event or circumstance had not occurred; and*
    - (2) *the LCR Base Case Equity Return,*

*provided that if:*

- (iii) *the Borrower was not able to repay the interest and amortisation payments (and net interest rate management agreement payments, if any) that are or would have been owing under the M2 Upgrade Debt Financing Documents or the M2 Upgrade LCR Subordinated Loan Agreement were it not for the relevant event, omission or circumstance, on the dates on which such amounts are or would have been due to be repaid thereunder; and*
- (iv) *the Company and the Trustee was not able to give:*
  - (A) *the M2 Upgrade Equity Investors (treated as if those M2 Upgrade Equity Investors were all Notional Initial M2 Upgrade Equity Investors) the M2 Upgrade Base Case Equity Return or*
  - (B) *the LCR Equity Investors (treated as if those LCR Equity Investors were all Notional Initial LCR Equity Investors) the LCR Base Case Equity Return,*

*prior to the occurrence of the relevant event or circumstance, then the Parties will negotiate in good faith with a view to enabling the Company and the*

*Trustee to have a similar ability to do so as they had prior to the occurrence of the relevant event or circumstance."*

75. Schedule 3 to Annexure A to the Upgrade Project Deed is deleted and replaced with a new schedule in the form attached as Appendix E to this Schedule 1;

76. Paragraph (a)(iv) of the paragraph of Schedule 7 to Annexure A to the Upgrade Project Deed entitled "Environmental Manager" is deleted and replaced with the following paragraph:

*"(iv) be engaged full time during the execution of Hills Motorway's Work until the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A." ;*

77. Exhibit A to the Upgrade Project Deed is amended by:

(a) inserting the following sections immediately after section 2.3.2(b)(xxx) of Exhibit A:

*"(xxxi) a widened eastbound M2 Motorway mainline carriageway from the end of the new east facing Lane Cove Road southbound entry ramp to the Delhi Road exit ramp with three 3.5 metre wide lanes and a single 2.5 metre wide breakdown/cycle lane as detailed in section 20.1.4 in Appendix 20;*

*(xxxii) an east facing entry ramp from Lane Cove Road southbound to the M2 Motorway eastbound, including extension of the existing left turn lane in Lane Cove Road southbound by not less than 55 metres towards the Fontenoy Road intersection and installation of an overheight vehicle detection system with provisions to re-direct overheight vehicles to Delhi Road, using existing Lane Cove Tunnel variable message signs and other devices.*

*(xxxiii) provisions for possible future ramp metering on the new east facing Lane Cove Road southbound entry ramp, including:*

*A. a spare 100m diameter conduit across the on-ramp at a suitable location; and*

*B. a queue loop detector at a suitable location on the on-ramp with provision for possible future connection to the traffic signals at the intersection of Lane Cove Road and Fontenoy Road.*

*(xxxiv) new and/or modified direction and advance direction signs on Lane Cove Road southbound to clearly differentiate between access to the M2 Motorway's new eastbound and existing westbound entry ramps." ;*

(b) deleting section 2.6.2(a) of Exhibit A and replacing it with the following section:

*"(a) The Company must provide an Environmental Representative from the commencement of construction until the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A." ;*

- (c) deleting section 2.7(d) of Exhibit A and replacing it with the following section:
- "(d) comply with the requirements of:*
- (i) the document entitled "DCM G22 - Occupational Health and Safety" attached as Appendix 6 with respect to works procured by the Company under the D&C Contract; and*
  - (ii) the document entitled "Specification D&C G22 Work Health and Safety (Construction Works) attached as Appendix 6 with respect to works procured by the Company under the On-Ramp D&C Contract.";*
- (d) deleting section 3.1.1(f) of Exhibit A and replacing it with the following section:
- "(f) All quality system records and all records relating to the quality of the Project Works and the Temporary Works must be freely accessible to RMS's Representative, the ER and the Independent Verifier at the Project Site up to the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A and at the M2 Motorway Control Centre thereafter.";*
- (e) deleting section 3.2(c) of Exhibit A and replacing it with the following section:
- "(c) until the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A, verifies the compliance of the M2 Upgrade with the M2 Upgrade Project Deed.";*
- (f) deleting section 4.4.1(c) of Exhibit A and replacing it with the following section:
- "(c) The Company must verify any boundary survey undertaken or provided to it and must undertake a consolidated boundary survey of the Project Site and the Local Roads in a single document. As a condition precedent to:*
- (i) Final Completion, the Company must undertake and give to RMS's Representative a consolidated as constructed survey of the Project Works comprising Stage 1, Stage 2 and Stage 3 to detail the actual location of the new infrastructure and to demonstrate that the M2 Upgrade is within the Project Site; and*
  - (ii) Construction Completion of Stage 4A, the Company must undertake and give to RMS's Representative a consolidated as constructed survey of the Project Works comprising Stage 3A to detail the actual location of the new infrastructure and to demonstrate that the M2 Upgrade is within the Project Site.";*
- (g) deleting section 4.4.2(d) of Exhibit A and replacing it with the following section:

- "(d) *Prior to each of the Date of Final Completion and the Date of Construction Completion of Stage 4A, the Company must submit to RMS's Representative:*
- (i) *a breakdown of the existing state control survey network (MGA/AHD) affected by the Company's Work and carried out in accordance with the Surveying Act 2002 and Surveying Regulation 2001. The existing PSMs must be connected into the Company's control survey;*
  - (ii) *Survey documentation must be in accordance with the recommended documentation practices specified in Part D of Standards and Practices for Control Surveys Version 1.7. A copy of the adjustment (e.g. HAVOC) input files used for adjustments must be submitted;*
  - (iii) *a plan of the control survey showing all marks adopted and values assigned; and*
  - (iv) *a locality sketch for each new mark placed and for any existing marks that need to be re-drawn because of substantial access changes."*
- (h) inserting the words "*and the On-Ramp Concept Design*" after the words "*Concept Design*" in section 7.1.1(a)(i) of Exhibit A;
- (i) inserting the words "*or the On-Ramp Concept Design*" after the words "*Concept Design*" in section 7.1.1(b) of Exhibit A;
- (j) deleting section 7.7.2(e) of Exhibit A and replacing it with the following section:
- "(e) *The deck widening of the Darling Mills, Yale Close, Devlin's Creek, Terry's Creek, Christie Road, Khartoum Road and Wicks Road bridges must be structurally integral with the existing bridge superstructures to form a single structure. The location of transverse movement joints for the bridge widening structures must match the location of the transverse movement joints in the existing bridge structures."*
- (k) deleting the heading of section 7.8.5 of Exhibit A and replacing it with the following heading:
- "7.8.5 *Herring Road, Christie Road, Windsor Road and Lane Cove Road Interchange Lighting*"**
- (l) deleting the first paragraph of section 7.14.2.2(a) of Exhibit A and replacing it with the following paragraph:
- "(a) *Pavement designs for Windsor Road, Christie Road, Herring Road and Lane Cove Road ramps and Local Roads must be carried out in accordance with the requirements in this Scope of Works and Technical Criteria and with the Documents in Appendix 9. For the purposes of pavement design, the following documents are to be used:"*

- (m) deleting section 7.14.2.3(a)(i) of Exhibit A and replacing it with the following section:
- "(i) the Windsor Road, Christie Road, Herring Road and Lane Cove Road ramps."*
- (n) deleting section 7.14.2.4(b) of Exhibit A and replacing it with the following section:
- "(b) The minimum criteria for calculations of pavement design traffic for Windsor Road ramps, Christie Road ramp, Herring Road ramp and Lane Cove Road ramp must be as those detailed in Appendix 20.4."*
- (o) deleting the first paragraph of section 7.14.2.4(c) of Exhibit A and replacing it with the following paragraph:
- "(c) The design of flexible pavements for Windsor Road, Christie Road, Herring Road and Lane Cove Road ramps and Local Roads must comply with the following criteria:"*
- (p) deleting the first paragraph of section 7.14.2.4(d) of Exhibit A and replacing it with the following paragraph:
- "(d) The design of rigid pavements for Windsor Road, Christie Road, Herring Road and Lane Cove Road ramps and Local Roads must comply with the following criteria:"*
- (q) deleting section 8.14(b) of Exhibit A and replacing it with the following section:
- "(b) The Company must ensure that all infrastructure, assets, facilities and amenities in the areas being maintained are at all times fit for their intended purpose, clean and tidy and in a condition that provides for public safety and maintains functional performance. For the avoidance of doubt, the Company must maintain functional performance of the existing M2 Motorway operations management and control system, tolling systems, traffic enforcement systems and the deluge, electrical and mechanical systems in the Norfolk Road Tunnels until the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A.";*
- (r) deleting section 9.1(j) of Exhibit A and replacing it with the following section:
- "(j) The Company must take and provide RMS with photographs (digital) of the progress of the Company's Work every three months until the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A. The photographs must be of a professional quality (minimum 300 dpi) suitable for RMS use in publications, project communications and promotions of a broader nature and for enlargement to use in display materials.";*
- (s) deleting section 9.2.1(a) of Exhibit A and replacing it with the following section:
- "(a) The Company must provide a Community Relations Manager, or a delegate that is authorised by the Company to carry out the functions of the Community Relations Manager, until the later of the Date of*

*Final Completion and the Date of Construction Completion of Stage 4A.*";

- (t) deleting section 9.2.2(a) of Exhibit A and replacing it with the following section:
- "(a) The Company must provide an Independent Community Liaison Representative (ICLR) until the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A. The ICLR must:*
- (i) be experienced in facilitating community consultation processes and mediating disputes;*
  - (ii) be independent of RMS, the Company and its construction contractors; and*
  - (iii) regularly report concurrently to both RMS and the Company on community involvement and consultation issues."*
- (u) deleting section 9.2.6(b) of Exhibit A and replacing it with the following section:
- "(b) The Company must, at 3 monthly intervals from commencement of construction until the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A, place media advertisements, including advertisements in the local and regional newspapers as agreed by RMS's Representative, giving notice of the nature of works proposed for the forthcoming 3 months, the areas in which these works are proposed to occur, the hours of operation and the Company contact details for use by the community to obtain information or register complaints."*
- (v) deleting section 9.2.7(b) of Exhibit A and replacing it with the following section:
- "(b) The Company must distribute community updates (newsletters) leaflets (letterbox drops) or letters to the householder (householder letters) as agreed by RMS's Representative at not more than four monthly intervals from the commencement of construction until the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A."*
- (w) deleting the last paragraph of section 9.2.7(i) of Exhibit A and replacing it with the following paragraph:
- "The website must operate continuously over the period from eight weeks after the date of the M2 Upgrade Project Deed until one year after the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A. The Company must review and update the website on a weekly basis. All material must be approved by RMS's Representative before being loaded onto the website."*
- (x) inserting the drawings attached as Appendix F to this Schedule 1 in Appendix 1 to Exhibit A;



- (y) inserting the drawings attached as Appendix G to this Schedule 1 in Appendix 2 to Exhibit A;
- (z) inserting the section attached as Appendix H to this Schedule 1 immediately after the document entitled "DCM G22" in Appendix 6 to Exhibit A;
- (aa) inserting the drawings attached as Appendix I to this Schedule 1 in Appendices 8.2 and 8.3 to Exhibit A;
- (bb) inserting the drawings attached as Appendix J to this Schedule 1 in Appendix 13 to Exhibit A;
- (cc) inserting the drawings attached as Appendix K to this Schedule 1 in Appendix 16 to Exhibit A;
- (dd) inserting the following rows into Table 18.1 in Appendix 18 to Exhibit A:

Wicks Road Northbound  (assuming stop/slow alternating traffic conditions - assuming no diversions)	1 of 1 lane	0900 to 1500  1900 to 0530	0530 to 2400	0000 to 2400
Wicks Road Southbound  (assuming stop/slow alternating traffic conditions - assuming no diversions)	1 of 1 lane	0900 to 1500  1900 to 0530	0530 to 2400	0000 to 2400

- (ee) insert the following section immediately after section 19.4.5 of Appendix 19 to Exhibit A:

**"19.4.6 Lane Cove Road/M2 Motorway Interchange**

*The modified interchange is to provide for movements from:*

- (i) Lane Cove Road northbound through traffic;
- (ii) Lane Cove Road southbound through traffic;
- (iii) Lane Cove Road northbound to M2 Motorway westbound;
- (iv) Lane Cove Road southbound to M2 Motorway eastbound;
- (v) Lane Cove Road southbound to M2 Motorway westbound;
- (vi) M2 Motorway eastbound to Lane Cove Road northbound; and
- (vii) M2 Motorway eastbound to Lane Cove Road southbound.

*The interchange arrangements to be provided, including the minimum number of lanes and minimum lane widths, are detailed in Appendix 20, Section 20.1.4 of this SWTC."*

- (ff) deleting section 19.1(c) of Appendix 19 to Exhibit A and replacing it with the following section:

*"(c) The requirements shall apply to the intersections and interchanges affected by the Upgrade works, including:*

- (i) Windsor Road/M2;*
- (ii) Herring Road/M2;*
- (iii) Herring Road/Talavera Road;*
- (iv) Christie Road/M2;*
- (v) Christie Road/Talavera Road; and*
- (vi) Lane Cove Road/M2."*

- (gg) deleting section 19.3(e) of Appendix 20 to Exhibit A and replacing it with the following section:

*"(e) The microsimulation model must be inclusive, as a minimum, of:*

- (i) the M2 Motorway/M2 Motorway/Lane Cove Tunnel corridor, from Old Windsor Road and Abbott Road respectively to Mowbray Road West, and all of the interchanges formed along the corridor;*
- (ii) Windsor Road, from Cook Street to Ventura Road;*
- (iii) the Christie Road/Talavera Road corridor, from the M2 Motorway to Khartoum Road; and*
- (iv) Lane Cove Road from Epping Road to Yanko Road."*

- (hh) inserting the following rows into section 20.1.1 of Appendix 20 to Exhibit A:

***"Design Speeds***

*Lane Cove Road 80km/h*

***Posted Speeds***

*Lane Cove Road 70 km/h"*

- (ii) inserting the following section immediately after section 20.1.2.2 of Appendix 20 to Exhibit A:

***"20.1.2.3 Lane Cove Road***

***Superelevation:***

*Maximum Superelevation 4.0%"*

- (jj) inserting the following section immediately after section 20.1.3.3 of Appendix 20 to Exhibit A:

**"20.1.3.4 Lane Cove Road Ramp**

**Vertical Grade:**

*Maximum grade* 9.5%"

- (kk) inserting the following row into section 20.1.4.1 of Appendix 20 to Exhibit A under "Number of Lanes" after the words "Eastbound carriageway (Terry's Creek bridge to Lane Cove Road exit)":

*"Eastbound carriageway (Lane Cove Road entry ramp to Delhi Road exit ramp* -3 traffic lanes  
-1 breakdown lane"

- (ll) changing the title of section 20.1.4.2 of Appendix 20 to Exhibit A to "*Windsor Road, Herring Road, Christie Road, Talavera Road and Lane Cove Road*" and inserting the following rows:

**"Number of Lanes:**

- |   |   |
|---|---|
| <b><i>Lane Cove Road (north of M2 Motorway)</i></b> | <ul style="list-style-type: none"> <li>• <i>Three through lanes southbound</i></li> <li>• <i>One left turn slip lane from southbound to new M2 eastbound on-ramp and existing M2 westbound on-ramp (extended from the existing by not less than 55m towards the Fontenoy Road intersection)</i></li> <li>• <i>One bicycle lane southbound</i></li> <li>• <i>Two right turn lanes from southbound to Talavera Road westbound</i></li> <li>• <i>No change to existing northbound</i></li> </ul> |
|---|---|

***Lane Cove Road (south of M2 Motorway)*** *No change to existing*

***Lane Widths:***

- |   |  |
|---|--|
| <b><i>Lane Cove Road (north of M2 Motorway)</i></b> | <ul style="list-style-type: none"> <li>• <i>as per existing</i></li> </ul> |
|---|--|

***Shoulder Widths:***

***Lane Cove Road (north of M2 Motorway)***

*outside (nearside) shoulder* 0.0m

*Median (offside)  
shoulder* 0.0m

**Verges**

**Lane Cove Road  
(north of M2  
Motorway)**

*Southbound* 2.0m

*Northbound* Existing";

(mm) inserting the following section immediately after section 20.1.5.4 of Appendix 20 to Exhibit A:

**"20.1.5.4 Lane Cove Road Interchange**

**Ramp Geometry** Minimum distance of 420m between the gore areas of this ramp and the existing Delhi Road exit ramp to provide a minimum weaving length of 520m measured in accordance with Highway Capacity Manual (2000), Exhibit 13-11

*East Facing  
Eastbound Entry  
Ramp - Parallel entry*

*East Facing  
Westbound Entry  
Ramp - Parallel entry* Existing

*West Facing  
Eastbound Exit Ramp  
- Parallel exit* Existing

*West Facing  
Westbound Entry  
Ramp - Tapered entry* Existing

**Number of Lanes**

*The new east facing eastbound entry ramp is to be single lane*

**Lane Widths**

*Single lane ramp* 3.5m

*Auxiliary lanes at  
interchanges and  
intersections* 3.5m

**Shoulder Widths**

*Outside shoulder  
single lane ramp* 2.0m

*Inside shoulder* 0.5m (min)

**Verges**

*Same as M2 Upgrade carriageways (Refer Section 20.1.4)";*

- (nn) inserting the following row into section 20.1.6 of Appendix 20 to Exhibit A:

**Wicks Road Bridge  
(Eastbound):**

**Overall Width  
Between Barriers:** 13.5m

*Lane Widths* 3 x 3.5m

**Shoulder Widths:**

*Outside shoulder* 2.5m

*Inside shoulder* 0.5m (min)

**Wicks Road Bridge (Westbound):** *no change to existing";*

- (oo) inserting the following row into Attachment A to Appendix 20 to Exhibit A:

<b>Location</b>	<b>AADT (2014) Opening year</b>	<b>Truck proportions</b>
Lane Cove Road On Ramp	6,000	5%

- (pp) inserting the following section immediately after section 28.6 of Appendix 28 to Exhibit A:

**"28.6A Lane Cove Road**

(a) *Lane Cove Road must be widened and modified to accommodate the interchange requirements indicated in Appendix 19, Appendix 20 and Appendix 30. Some additional requirements for Lane Cove Road are described in Table 28.5 below.*

(b) *In Tables 28.2, 28.3 and 28.4 kerb noted as "SA", "SE" or "SF" must be in accordance with the kerb types defined in Figure 3.10.2 of the Road Design Guide."*

- (qq) inserting a new table immediately after Table 28.4 of Appendix 28 to Exhibit A in the form attached as Appendix L to this Schedule 1;
- (rr) inserting a new Appendix 30A after Appendix 30 to Exhibit A in the form attached as Appendix M to this Schedule 1;
- (ss) inserting the drawings attached as Appendix N to this Schedule 1 in Appendix 31 to Exhibit A;
- (tt) inserting the Initial Project Management Plan attached as Appendix O to this Schedule 1 in Appendix 35 to Exhibit A;

- (uu) inserting the Initial Environmental Management Project Plan attached as Appendix P to this Schedule 1 in Appendix 36 to Exhibit A;
- (vv) inserting the Initial Construction Plan attached as Appendix Q to this Schedule 1 in Appendix 38 to Exhibit A;
- (ww) inserting the Initial Community Involvement Plan attached as Appendix R to this Schedule 1 in Appendix 40 to Exhibit A;
- (xx) inserting the Initial Work Health and Safety Plan attached as Appendix S to this Schedule 1 in Appendix 41 to Exhibit A;
- (yy) inserting the Initial Traffic Management and Safety Plan attached as Appendix T to this Schedule 1 in Appendix 43 to Exhibit A;
- (zz) inserting the Initial Project Training Plan attached as Appendix U to this Schedule 1 in Appendix 44 to Exhibit A;
- (aaa) inserting the Industrial Relations Strategy attached as Appendix V to this Schedule 1 in Appendix 45 to Exhibit A;
- (bbb) inserting the following section immediately after section 47.2.12 of Appendix 47 to Exhibit A:

***47.2.13 Overheight Detection and Response System***

*Overheight detectors must be provided at a suitable location on the new east facing Lane Cove Road southbound entry ramp or existing detectors relocated to detect overheight vehicles entering the M2 Motorway from the new east facing Lane Cove Road southbound entry ramp before entry to the Lane Cove Tunnel. The detector system must include modulated light beams to detect overheight vehicles.*

*The existing Lane Cove Tunnel warning sign dedicated to advising drivers of vehicles of their overheight dimension detection, together with electronic over-dimensional vehicle indicators, must be relocated to a suitable location to give the drivers adequate space to stop before entering the Lane Cove Tunnel and opportunities to detour by using the Delhi Road eastbound exit ramp.*

*Overheight detection must raise an alarm and alert in the OMCS for the operators of the Lane Cove Tunnel, utilising the existing Incident detection and Incident response functionality of the OMCS. Automatic Incident responses to overheight vehicle detection must be generated within the OMCS and must be implemented in a timely manner to ensure that roadside devices are activated and produce effective advice to overheight vehicle drivers in accordance with current Lane Cove Tunnel operations. The overheight detection system must initiate and place an appropriate message on the existing Lane Cove Tunnel variable message signs. All overheight vehicle Incidents that are detected must be logged in detail in the OMCS event logging system.”;*

- (ccc) deleting section 47.2.3(a) of Appendix 47 to Exhibit A and replacing it with the following section:

*“(a) Additional pan, tilt and zoom (“PTZ”) CCTV cameras must be installed at the new west facing entry and exit ramps at Windsor Road, at the new east facing exit ramp at Herring Road to provide*

views as detailed in Items No 1 and 2 of Schedule 1 (total quantity 2). An additional PTZ CCTV camera must be installed if required at the new east facing entry ramp at Lane Cove Road or existing CCTV cameras relocated to provide views as detailed in Item No 3 of Schedule 1. The additional cameras and associated masts must be located in a suitable position and be of sufficient height to ensure camera views are not affected by any building, sign or bridge structures or foreseeable tree or foliage growth.”;

(ddd) inserting the following section immediately after section 47.4(a)(vi) of Appendix 47 to Exhibit A:

*“(vii) Installation of additional two (2) separate nested conduits, including a minimum of one (1) separate communications conduit, alongside the M2 Motorway Carriageway Widening to service the relocated Lane Cove Tunnel assets, which include VMS, VSLS, CCTV cameras and overheight vehicle detectors and indicators. Cabling requirements for these assets to be as per the existing arrangement.”;*  
and

(eee) inserting the following row after Item No. 2 in Schedule 1 to Appendix 47 to Exhibit A:

3	New east facing entry ramp at Lane Cove Road	The whole of the east facing entry ramp from the gore of the ramp on the M2 Motorway up to and including the western edge of the southbound through lanes on Lane Cove Road.
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- 78. Exhibit C to the Upgrade Project Deed is amended by renaming the existing Overall D&C Program in Exhibit C as 'Part 1' and inserting a new Exhibit C 'Part 2' to as set out in the form attached as Appendix W to this Schedule 1;
- 79. Exhibit D to the Upgrade Project Deed is amended by inserting the On-Ramp Insurance Policies;
- 80. Exhibit E to the Upgrade Project Deed is amended in accordance with Appendix X to this Schedule 1;
- 81. The Planning Approval is inserted as a new Exhibit F to the Upgrade Project Deed;
- 82. Clause 1.1 of the M2 Motorway Project Deed is amended by deleting the definitions of "Base Case Model", "Early Termination Amount", "Equity Subscription Deed", "Material Adverse Effect", "M2 Upgrade Company Land", "M2 Upgrade Company Lease", "M2 Upgrade Project Securities", "M2 Upgrade Stage", "M2 Upgrade Trust Land", "M2 Upgrade Trust Concurrent Lease", "M2 Upgrade Trust Lease", "Notional Initial Investor", "Project Approval", "Stage 1, Stage 2 and Stage 3" and "Stage 2 M2 Upgrade Trust Concurrent Lease" and inserting the following definitions in clause 1.1 in appropriate alphabetical order:

***"Base Case Model means:***

*(a) prior to M2 Upgrade Final Completion, the financial model and assumptions:*

- (i) which includes certain projections and calculations with respect to the repayment of the Project Debt and the payment of returns to the Investors; and
  - (ii) which the parties initialled for identification on or about the date of the M2 Upgrade Project Deed; and
- (b) on and from M2 Upgrade Final Completion, the financial model and assumptions:
- (i) which includes certain projections and calculations with respect to the repayment of the Project Debt and M2 Upgrade LCR Subordinated Debt and the payment of returns to the Investors; and
  - (ii) which the parties initialled for identification on or about the date of the On-Ramp Amending Deed; and
  - (iii) which, if M2 Upgrade Final Completion has occurred but M2 Upgrade Construction Completion of Stage 4A has not occurred, will have:
    - (A) the operating scenario switch set to scenario 1 labelled "20110428 Model + Toll Freeze"; and
    - (B) all model integrity checks showing "OK"; and
  - (iv) which, if M2 Upgrade Final Completion and M2 Upgrade Construction Completion of Stage 4A have occurred, will have:
    - (A) the operating scenario switch set to scenario 2 labelled "20110428 Model + Toll Freeze + LCRE"; and
    - (B) all model integrity checks showing "OK".

**"Early Termination Amount, on any date:**

- (a) is the total of:
- (i) the Project Debt on that date (excluding, but only prior to the M2 Upgrade Date of Final Completion and not thereafter, any M2 Upgrade Project Debt);
  - (ii) an amount sufficient to give the Company and the Trustee in aggregate the ability to give the Investors (treated as if those Investors were all Notional Initial Investors (but prior to:
    - A. the M2 Upgrade Date of Final Completion, excluding any M2 Upgrade Project Securities; and
    - B. the M2 Upgrade Date of Construction Completion of Stage 4A, excluding any M2 Upgrade (LCR) Project Securities),

the Equity Return (having regard to amounts that each of the Company and the Trustee have previously received and discounted



at a rate to be agreed to take account of early receipt) to that date;  
and

(iii) prior to the Subordinated Debt Refinance Date only, but only after the M2 Upgrade Date of Construction Completion of Stage 4A, the M2 Upgrade LCR Subordinated Debt on that date; and

(b) does not include any interest on the Project Debt or the M2 Upgrade LCR Subordinated Debt to the extent that it is calculated at a penalty rate."

**"Equity Subscription Deed** means the deed so entitled entered into by the Trustee (in its capacity as trustee of the Hills Motorway Trust), the Company, Transurban Holdings, the Security Trustee, the Transurban Holding Trustee and RMS dated 17 November 2010, as amended by the ESD First Amending Deed."

**"ESD First Amending Deed** means the deed entitled "Equity Subscription Deed: First Amending Deed" entered into by the Trustee (in its capacity as trustee of the Hills Motorway Trust), the Company, Transurban Holdings, the Security Trustee, the Transurban Holding Trustee and RMS dated on or about the date of the On-Ramp Amending Deed."

**"LCR Equity Subscription Contribution** has the meaning given in the Equity Subscription Deed."

**"LCR Contribution Date** has the meaning given in the Equity Subscription Deed."

**"Material Adverse Effect** is:

(a) for the purposes of clause 2.1(e), a material adverse effect on:

(i) the ability of the Company or the Trustee to carry out the Project (excluding the design, construction and completion of the M2 Upgrade) in accordance with the Project Documents;

(ii) the ability of the Trustee to repay the Project Debt within the Payback Period substantially in accordance with the terms of the Debt Documentation;

(iii) the ability of the Trustee to repay the M2 Upgrade LCR Subordinated Debt substantially in accordance with the terms of the M2 Upgrade LCR Subordinated Loan Agreement; or

(iv) the level or timing of revenues or outgoings of the Project (excluding, in respect of any M2 Upgrade Stage that has not achieved M2 Upgrade Construction Completion, revenues or outgoings of that M2 Upgrade Stage) and as a result the Equity Return for the Term (compared to the Equity Return if the relevant event had not occurred); and

(b) for the purposes of clause 2.1(f), a material adverse effect on:

(i) the ability of the Company or the Trustee to carry out the Project (excluding the design, construction and completion of the M2 Upgrade) in accordance with the Project Documents;

- (ii) *the ability of the Trustee to repay the Project Debt within the Payback Period;*
- (iii) *the ability of the Trustee to repay the M2 Upgrade LCR Subordinated Debt within the period required under the M2 Upgrade LCR Subordinated Loan Agreement; or*
- (iv) *the level of timing of revenues or outgoings of the Project (excluding, in respect of any M2 Upgrade Stage that has not achieved M2 Upgrade Construction Completion, revenues or outgoings of that M2 Upgrade Stage) and as a result the Equity Return for the Term (compared to the Equity Return if the relevant event had not occurred)."*

**"M2 Upgrade (LCR) Project Securities** means those shares in the Company and units in the Trust issued on each LCR Contribution Date in accordance with the Equity Subscription Deed up to the LCR Equity Subscription Amount."

**"M2 Upgrade LCR Subordinated Debt** means the amount of subordinated debt contributed pursuant to the M2 Upgrade LCR Subordinated Loan Agreement in accordance with clause 5.1(a)(2) of the Equity Contribution Deed."

**"M2 Upgrade LCR Subordinated Loan Agreement** means the loan agreement dated on or about the date of the On-Ramp Amending Deed between the Trustee as trustee of the Trust and Transurban Holding Trustee as responsible entity of the Transurban Holding Trust."

**"M2 Upgrade Project Securities** means those shares in the Company and units in the Trust issued on each Equity Contribution Date in accordance with the Equity Subscription Deed up to the Required Equity Contribution Amount."

**"M2 Upgrade Stage** means each of Stage 1, Stage 2, Stage 3 and Stage 3A (as defined in the M2 Upgrade Project Deed)."

**"M2 Upgrade Trust Concurrent Lease** is each of the Stage 1 M2 Upgrade Trust Concurrent Lease and the Stage 3 M2 Upgrade Trust Concurrent Lease."

**"M2 Upgrade Trust Land** is the aggregate of the Stage 2 M2 Upgrade Trust Land, the Stage 3 M2 Upgrade Trust Land and the Stage 3A M2 Upgrade Trust Land."

**"M2 Upgrade Trust Lease** is each of the Stage 2 M2 Upgrade Trust Lease, the Stage 3 M2 Upgrade Trust Lease and the Stage 3A M2 Upgrade Trust Lease."

**"Notional Initial Investor** is a notional corporate taxpayer who:

- (a) *is issued with:*
  - (i) *initial shares in the Company and units in the Trust pursuant to the Equity Information Memorandum; and*
  - (ii) *the M2 Upgrade Project Securities pursuant to the Equity Subscription Deed in the ratio 155:185; and*
  - (iii) *the M2 Upgrade (LCR) Project Securities pursuant to the Equity Subscription Deed in the ratio 155:185,*

on the basis that one share in the Company is Stapled to one unit in the Trust and that, in relation to:

- (iv) the M2 Upgrade Project Securities, the aggregate cost of the investment in M2 Upgrade Project Securities cannot exceed \$275 million less the Advance Contribution; and
  - (v) the M2 Upgrade (LCR) Project Securities, the aggregate cost of the investment in M2 Upgrade (LCR) Project Securities cannot exceed \$11 million; and
- (b) holds those shares and units from the date they are issued until the end of the Term."

**"On-Ramp Amending Deed** has the same meaning as in the M2 Upgrade Project Deed."

**"Project Approval** has same meaning as in the M2 Upgrade Project Deed."

**"Required Equity Contribution Amount** has the meaning given in the Equity Subscription Deed."

**"Required Equity Contribution Date** has the meaning given in the Equity Subscription Deed."

**"Stage 1, Stage 2, Stage 3 and Stage 3A** have the same meaning as in the M2 Upgrade Project Deed."

**"Stage 1 M2 Upgrade Trust Concurrent Lease** is a concurrent lease of the Stage 1 M2 Upgrade Company Land in the form of the Annexed M2 Upgrade Trust Concurrent Lease (but which will be completed by RMS, including completion of Schedule A and Schedule B to it) which RMS grants the Trustee under clause 4A.1(b) and which RMS is obliged to prepare in accordance with clause 4A.2(a)(ii)."

**"Stage 3A M2 Upgrade Trust Land** is:

- (a) before execution of the Stage 3A M2 Upgrade Trust Lease, the land identified as Lot 14 in Deposited Plan 883750; and
- (b) after execution of the Stage 3A M2 Upgrade Trust Lease, the land the subject of the Stage 3A M2 Upgrade Trust Lease."

**"Stage 3A M2 Upgrade Trust Lease** is a lease of the Stage 3A M2 Upgrade Trust Land in the form of the Annexed M2 Upgrade Trust Lease (but which will be completed by RMS) which RMS grants the Trustee in accordance with clause 4A.1(a)(iii) and which RMS is obliged to prepare in accordance with clause 4A.2(c)(iv)."

**"Subordinated Debt Refinance Date** means 18 November 2014."

83. Clause 1.3(g) of the M2 Motorway Project Deed is deleted and replaced with the following clause:

- "(g) A reference to Investors (treated as if those Investors were all Notional Initial Investors) must be read as a reference to one Investor who is deemed to hold the aggregate number of:

- (i) *shares in the Company and units in the Trust issued under the Equity Information Memorandum; and*
- (ii) *M2 Upgrade Project Securities pursuant to the Equity Subscription Deed in the ratio 155:185; and*
- (iii) *the M2 Upgrade LCR Project Securities pursuant to the Equity Subscription Deed in the ratio 155:185,*

*on the basis that one share in the Company is Stapled to one unit in the Trust and that, in relation to:*

- (iv) *the M2 Upgrade Project Securities, the aggregate cost of the investment in M2 Upgrade Project Securities cannot exceed \$275 million less the Advance Contribution; and*
- (v) *the M2 Upgrade (LCR) Project Securities, the aggregate cost of the investment in M2 Upgrade (LCR) Project Securities cannot exceed \$11 million."*

84. Clause 2.1(d)(vi) of the M2 Motorway Project Deed is deleted and replaced with the following clause:

*"(vi) an increase in the cost of performance of the Company's and the Trustee's obligations under this deed, the Company Lease, the Trust Lease and the Trust Concurrent Lease beyond that reasonably anticipated at the time of entering into this deed, or, an increase in the cost of performance of the Company's and Trustee's obligations under any M2 Upgrade Company Lease, any M2 Upgrade Trust Lease (other than the Stage 3A M2 Upgrade Trust Lease) and any M2 Upgrade Trust Concurrent Lease, beyond that reasonably anticipated at the time of entering into the M2 Upgrade Project Deed, or, an increase in the cost of performance of the Trustee's obligations under the Stage 3A M2 Upgrade Trust Lease beyond that reasonably anticipated at the time of entering into the On-Ramp Amending Deed due to:*

*A. subject to clause 2.16, a change in:*

- (I) New South Wales or local government legislation including regulations or by-laws;*
- (II) New South Wales Authority requirements; or*
- (III) New South Wales government, local government or State Authority guidelines with which the Company and the Trustee are legally required to comply;*

*B. a change in the application of the existing lawful requirements of a New South Wales Authority; or*

*C. a court handing down a Final Determination which changes the judicial interpretation of existing New South Wales legislation;";*

85. Clause 2.1(c)(iii) of the M2 Motorway Project Deed is amended by deleting the reference to clause "2.1(c)(iii)" and replacing it with "2.1(d)".

86. Clause 2.1(d)(vii) of the M2 Motorway Project Deed is deleted and replaced with the following clause:

*"(vii) an increase in the cost of performance of the Company's and the Trustee's obligations under this deed, the Company Lease, the Trust Lease and the Trust Concurrent Lease beyond that reasonably anticipated at the time of entering into this deed, or an increase in the cost of performance of the Company's and Trustee's obligations under any M2 Upgrade Company Lease, any M2 Upgrade Trust Lease (other than the Stage 3A M2 Upgrade Trust Lease) and any M2 Upgrade Trust Concurrent Lease, beyond that reasonably anticipated at the time of entering into the M2 Upgrade Project Deed, or, an increase in the cost of performance of the Trustee's obligations under the Stage 3A M2 Upgrade Trust Lease beyond that reasonably anticipated at the time of entering into the On-Ramp Amending Deed due to:*

*A. a change in:*

*(I) Commonwealth legislation including regulations or by-laws;*

*(II) Commonwealth Authority requirements; or*

*(III) Commonwealth government or Commonwealth Authority guidelines with which the Company and the Trustee are legally required to comply;*

*B. a change in the application of the existing lawful requirements of a Commonwealth Authority; or*

*C. a court handing down a Final Determination which changes the judicial interpretation of existing Commonwealth legislation,*

*except in respect of income taxation; and";*

87. Clause 2.18(b) of the M2 Motorway Project Deed is deleted and replaced with the following clause:

*"(b) Subject to clause 2.18(d), the parties acknowledge and agree that the undertaking of the M2 Upgrade by the Hills Motorway Parties to the standard required under the M2 Upgrade Project Deed or any other requirement of the M2 Upgrade Project Deed does not alter or vary the standard to which the M2 Motorway (excluding the M2 Upgrade) was or is required to be designed or constructed or is required to be operated and maintained in accordance with this deed (except to the extent the Scope of Works and Technical Criteria is expressly amended by schedule 1 of the M2 Upgrade Project Deed, the deed entitled "M2 Motorway: Cashless Tolling Amending Deed entered into between the parties on or about 28 October 2011 and the On-Ramp Amending Deed).";*

88. Clause 2.18(d)(ii) of the M2 Motorway Project Deed is amended by deleting the words "*clauses 0*" and replacing them with the words "*clauses 2.2(b)(ii)*";

89. Clause 4A.2(a) of the M2 Motorway Project Deed is deleted and replaced with the following clause:

*"(a) RMS must prepare the:*

- (i) *Stage 1 M2 Upgrade Company Lease; and*
  - (ii) *Stage 1 M2 Upgrade Trust Concurrent Lease."*
90. Clause 4A.2(b) of the M2 Motorway Project Deed is deleted and replaced with the following clause:
- "(b) RMS must prepare the Stage 2 M2 Upgrade Trust Lease."*
91. Clause 4A.2(c) of the M2 Motorway Project Deed is deleted and replaced with the following clause:
- "(c) RMS must prepare the:*
- (i) Stage 3 M2 Upgrade Company Lease;*
  - (ii) Stage 3 M2 Upgrade Trust Lease;*
  - (iii) Stage 3 M2 Upgrade Trust Concurrent Lease; and*
  - (iv) Stage 3A M2 Upgrade Trust Lease."*
92. Clause 4A.6(b)(ii) of the M2 Motorway Project Deed is deleted and replaced with the following clause:
- "(ii) Stage 2 M2 Upgrade Trust Land";*
93. Clause 4A.6 of the M2 Motorway Project Deed is amended by inserting the following new clause (b1) after clause 4A.6(b):
- "(b1) By a date that is no later than the M2 Upgrade Date of Construction Completion of Stage 4A, the Company and the Trustee must notify RMS of the final boundaries of the Stage 3A M2 Upgrade Trust Land.";*
94. Clause 4A.6(c) of the M2 Motorway Project Deed is amended by deleting the preamble and replacing it with the following preamble:
- "(c) Subject to clause 4A.6(f), RMS must, within 18 months of the Company and the Trustee giving each notice under clause 4A.6(b) and clause 4A.6(b1):";*
95. Clause 4A.6(e) of the M2 Motorway Project Deed is deleted and replaced with the following clause:
- "(e) In respect of each M2 Upgrade Stage, subject to clause 4A.6(f), RMS must ensure that the relevant M2 Upgrade Company Lease, M2 Upgrade Trust Lease and M2 Upgrade Trust Concurrent Lease are in registrable form within 18 months of the applicable notice from the Company and the Trustee referred to in clause 4A.6(b) and clause 4A.6(b1).";*
96. Clause 7.15 of the M2 Motorway Project Deed is amended by deleting the words "clause 0" and replacing them with the words "clause 7".
97. Clause 9.5(c) of the M2 Motorway Project Deed is deleted and replaced with the following clause:
- "(c) At any time after the Satisfaction Date and up to and including the later of the M2 Upgrade Date of Final Completion and the M2 Upgrade Date of*

*Construction Completion of Stage 4A, RMS may not exercise its power pursuant to clause 9.5(a) in respect of any M2 Upgrade Stage which at the relevant time has not achieved M2 Upgrade Construction Completion if the exercise of that power is in a manner inconsistent with the Hills Motorway Parties' rights or obligations pursuant to the M2 Upgrade Documents.";*

98. Clause 10.1(d)(ii) of the M2 Motorway Project Deed is deleted and replaced with the following clause:

*"(ii) subject to clause 10.1(e), if prior to the later of the M2 Upgrade Date of Final Completion and the M2 Upgrade Date of Construction Completion of Stage 4A there is loss, damage or destruction which affects both the M2 Motorway and an M2 Upgrade Stage prior to that M2 Upgrade Stage achieving M2 Upgrade Construction Completion, it is acknowledged that while the M2 Upgrade Project Deed remains in force, the making good of loss or damage or the repair or reinstatement of both the M2 Motorway and the M2 Upgrade Stage is linked and will need to be coordinated.";*

99. Clause 14.6A of the M2 Motorway Project Deed is deleted and replaced with the following clause:

***"14.6A Default and termination under the M2 Upgrade Project Deed***

*(a) The parties acknowledge and agree that, if an M2 Upgrade Event of Default or an M2 Upgrade Termination Event occurs before the later of M2 Upgrade Final Completion and M2 Upgrade Construction Completion of Stage 4A:*

*(i) that M2 Upgrade Event of Default or M2 Upgrade Termination Event will be resolved solely in accordance with the M2 Upgrade Project Deed; and*

*(ii) the parties will have no recourse to clauses 14.1 to 14.6 of this deed in respect of the M2 Upgrade Event of Default or the M2 Upgrade Termination Event, including as a result of any act or omission of the parties while the M2 Upgrade Event of Default or the M2 Upgrade Termination Event (as applicable) is subsisting.*

*(b) For the avoidance of doubt, a failure by the Company or the Trustee to remedy any M2 Upgrade Event of Default or M2 Upgrade Termination Event in accordance with the M2 Upgrade Project Deed will not provide RMS with recourse to clauses 14.1 to 14.6 of this deed.";*

100. Recital C of each of Exhibit D1 and Exhibit D4 to the M2 Motorway Project Deed is deleted and replaced with the following recital:

*"C. The construction works comprising the M2 Upgrade will be completed in 4 stages."; and*

101. Exhibit L to the M2 Motorway Project Deed is deleted.

**Appendix A - Schedule 3 to the Upgrade Project Deed**

**Schedule 3 - Amendments from Final Completion**



## Appendix A - Schedule 3 to the Upgrade Project Deed

### Schedule 3 - Amendments from Final Completion

With effect from the Date of Final Completion:

- (a) paragraph (b) of the definition of "Term" in clause 1.1 of the M2 Motorway Project Deed is deleted and replaced with the following paragraph:
- "(b) the period which begins on the M2 Motorway Commencement Date and ends on the day the Term ends under the Company Lease, the Trust Lease, the Trust Concurrent Lease and any M2 Upgrade Company Lease, any M2 Upgrade Trust Lease and any M2 Upgrade Trust Concurrent Lease."*
- (b) The definition of "Term" in clause 1.1 of Exhibit A to the M2 Motorway Project Deed is deleted and replaced with the following definition:
- "Term is the period beginning on the 26 May 1997 and ending on 26 May 2046 unless one of the following events occurs:*
- (a) *if the Company and the Trustee in aggregate derive an amount sufficient to give the Investors (treated as if they were all Notional Initial Investors) a real after tax internal rate of return from the Project in excess of 16.5 per cent per annum during the period from 26 May 1997 to 26 May 2037, the term of this Lease will end (at the option of the Lessor) on 26 May 2037;*
- (b) *if paragraph (a) does not apply and the Company and the Trustee in aggregate derive an amount sufficient to give the Investors (treated as if they were all Notional Initial Investors) a real after tax internal rate of return from the Project in excess of 16 per cent per annum during the period from 26 May 1997 to 26 May 2040, the term of this Lease will end (at the option of the Lessor) on 26 May 2040; or*
- (c) *if neither paragraph (a) nor (b) apply and the Company and the Trustee in aggregate derive an amount sufficient to give the Investors (treated as if they were all Notional Initial Investors) a real after tax internal rate of return from the Project in excess of 16 per cent per annum during the period from the 26 May 1997 to 26 May 2043, the term of this Lease will end (at the option of the Lessor) on 26 May 2043."*
- (c) The definition of "Concurrent Lease Term" in clause 1.1 of Exhibit C to the M2 Motorway Project Deed is deleted and replaced with the following definition:
- "Concurrent Lease Term is the period beginning on 26 May 1997 and ending on 26 May 2046 unless one of the following events occurs:*
- (a) *if the Company and the Trustee in aggregate derive an amount sufficient to give the Investors (treated as if they were all Notional Initial Investors) a real after tax internal rate of return from the Project in excess of 16.5 per cent per annum during the period from 26 May 1997 to 26 May 2037, the term of this Lease will end (at the option of the Lessor) on 26 May 2037;*

- (b) *if paragraph (a) does not apply and the Company and the Trustee in aggregate derive an amount sufficient to give the Investors (treated as if they were all Notional Initial Investors) a real after tax internal rate of return from the Project in excess of 16 per cent per annum during the period from 26 May 1997 to 26 May 2040, the term of this Lease will end (at the option of the Lessor) on 26 May 2040; or*
  - (c) *if neither paragraph (a) nor (b) apply and the Company and the Trustee in aggregate derive an amount sufficient to give the Investors (treated as if they were all Notional Initial Investors) a real after tax internal rate of return from the Project in excess of 16 per cent per annum during the period from 26 May 1997 to 26 May 2043, the term of this Lease will end (at the option of the Lessor) on 26 May 2043.*
- (d) The definition of "Term" in clause 1.1 of Exhibit D to the M2 Motorway Project Deed is deleted and replaced with the following definition:
- "Term** is the period beginning on 26 May 1997 and ending on 26 May 2046 unless one of the following events occurs:*
- (a) *if the Company and the Trustee in aggregate derive an amount sufficient to give the Investors (treated as if they were all Notional Initial Investors) a real after tax internal rate of return from the Project in excess of 16.5 per cent per annum during the period from 26 May 1997 to 26 May 2037, the term of this Lease will end (at the option of the Lessor) on 26 May 2037;*
  - (b) *if paragraph (a) does not apply and the Company and the Trustee in aggregate derive an amount sufficient to give the Investors (treated as if they were all Notional Initial Investors) a real after tax internal rate of return from the Project in excess of 16 per cent per annum during the period from 26 May 1997 to 26 May 2040, the term of this Lease will end (at the option of the Lessor) on 26 May 2040; or*
  - (c) *if neither paragraph (a) nor (b) apply and the Company and the Trustee in aggregate derive an amount sufficient to give the Investors (treated as if they were all Notional Initial Investors) a real after tax internal rate of return from the Project in excess of 16 per cent per annum during the period from 26 May 1997 to 26 May 2043, the term of this Lease will end (at the option of the Lessor) on 26 May 2043."*

**Appendix B - Schedule 3A to the Upgrade Project Deed**

**Schedule 3A - Amendments from the later of Final Completion and Construction Completion of Stage 4A**

## Appendix B - Schedule 3A to the Upgrade Project Deed

### Schedule 3A - Amendments from the later of Final Completion and Construction Completion of Stage 4A

With effect from the later of the Date of Final Completion and the Date of Construction Completion of Stage 4A:

- (a) clause 8.3 of the M2 Motorway Project Deed is deleted and replaced with the following clause:

***"8.3 The Company to keep M2 Motorway open***

*During the Term, the Company must keep the M2 Motorway open to the public for the continuous passage of vehicles:*

- (a) *unless RMS agrees otherwise in writing;*
- (b) *unless it is necessary to close the M2 Motorway because of:*
- (i) *the requirements of any relevant Authority;*
  - (ii) *a Force Majeure Event; or*
  - (iii) *a material threat to the health or safety of M2 Motorway users; or*
- (c) *except to the extent it is necessary to close all or any part of the M2 Motorway to carry out the works required to rectify a defect in accordance with the M2 Upgrade Documents."*
- (b) clause 14.4 of the M2 Motorway Project Deed is deleted and replaced with the following clause:

***"14.4 Termination by the Company and the Trustee***

*Subject to clause 14.5, the Company and the Trustee may terminate this deed by giving RMS 30 days' written notice if:*

- (a) *because of a breach of a warranty given by RMS or the Minister in clause 2.10(a), a court makes a Final Determination that the Company or the Trustee may not:*
- (i) *construct, maintain, operate or repair the M2 Motorway; or*
  - (ii) *levy on or keep tolls from M2 Motorway users,*  
*in accordance with the Project Documents;*
- (b) *a court makes a Final Determination which prevents the Company or the Trustee from:*
- (i) *constructing, maintaining, operating or repairing the M2 Motorway; or*
  - (ii) *levying on or keeping tolls from M2 Motorway users,*

*in the manner contemplated by the Project Documents (except where the Final Determination is issued as a result of a wrongful fact or default by the Trustee, the Company or their contractors);*

(c) *the New South Wales Government enacts legislation which prohibits or has the effect of prohibiting the Company or the Trustee from:*

(i) *constructing, maintaining, operating or repairing the M2 Motorway; or*

(ii) *levying on or keeping tolls from M2 Motorway users,*

*in accordance with the Project Documents;*

(d) *an Authority resumes any part of the Premises and the Company's or the Trustee's ability to:*

(i) *construct, maintain, operate or repair the M2 Motorway; or*

(ii) *levy on and keep tolls from M2 Motorway users,*

*in accordance with the Project Documents is materially adversely affected; or*

(e) *the Minister or RMS breaches any obligation under this deed, the Company Lease, the Trust Lease or the Trust Concurrent Lease, an M2 Upgrade Company Lease, an M2 Upgrade Trust Lease or an M2 Upgrade Trust Concurrent Lease (other than a breach of the Company Lease which is a result of a breach by the Trustee of the Trust Concurrent Lease or a breach of an M2 Upgrade Company Lease which is a result of a breach by the Trustee of the corresponding M2 Upgrade Trust Concurrent Lease) and the Company or the Trustee are prevented from:*

(i) *constructing, maintaining, operating or repairing the M2 Motorway; or*

(ii) *levying on or keeping tolls from M2 Motorway users,*

*in accordance with the Project Documents."*

**Appendix C - Schedule 7 to the Upgrade Project Deed**

**Schedule 7 Not Used**

**Appendix D - Schedule 8 to the Upgrade Project Deed**

**Schedule 8 Commercially Sensitive Information**

## Appendix D - Schedule 8 to the Upgrade Project Deed

### Schedule 8 Commercially Sensitive Information

No.	Document and Clause Reference and Commercial in Confidence Information	
1.	Exhibit C to Upgrade Project Deed	All of Exhibit C
2.	Exhibit D to Upgrade Project Deed	All figures in the 'Premium/Rates' section of each insurance policy.
3.	Schedule 6 Part 1 to Upgrade Project Deed	All figures in the 'Windsor Road Section', 'Herring Road Section', 'Main Plaza & Pennant Hills Section' and 'total (if all Sections completed)' columns of the table in Part 1 of Schedule 6.
4.	Schedule 7 of Upgrade Project Deed	Names of Hills Motorway's nominated personnel
5.	Clause 1.1 of Annexure A to the Upgrade Project Deed	The figure in the definition of "LCR Base Case Equity Return".
6.	Clause 6.1 of Schedule 1 of the Deed of Amendment and Restatement (Independent Verifier Deed)	The figure for the limit of the Independent Verifier's liability
7.	Clause 5 of Schedule 3 to Schedule 1 of the Deed of Amendment and Restatement (Independent Verifier Deed)	Names of the Independent Verifier's nominated personnel. All figures in the 'Performance Time', 'Daily Rates' and 'Total' columns of the two tables, except the 'Total' figure.
8.	Clause 7 Schedule 3 to Schedule 1 of the Deed of Amendment and Restatement (Independent Verifier Deed)	All figures in the two tables, except the 'Total' figure in the 'Payment' column.
9.	Parts A and B of Schedule 5 to Schedule 1 of the Deed of Amendment and Restatement (Independent Verifier Deed)	Names of Independent Verifier's nominated personnel
10.	LCR Base Case Financial Model	The whole of the LCR Base Case Financial Model
11.	LCR Base Case Model	The whole of the LCR Base Case Model



**Appendix E - Schedule 3 to Annexure A to the Upgrade Project Deed**

**Schedule 3 Construction Completion Pre-conditions**

## Appendix E - Schedule 3 to Annexure A to the Upgrade Project Deed

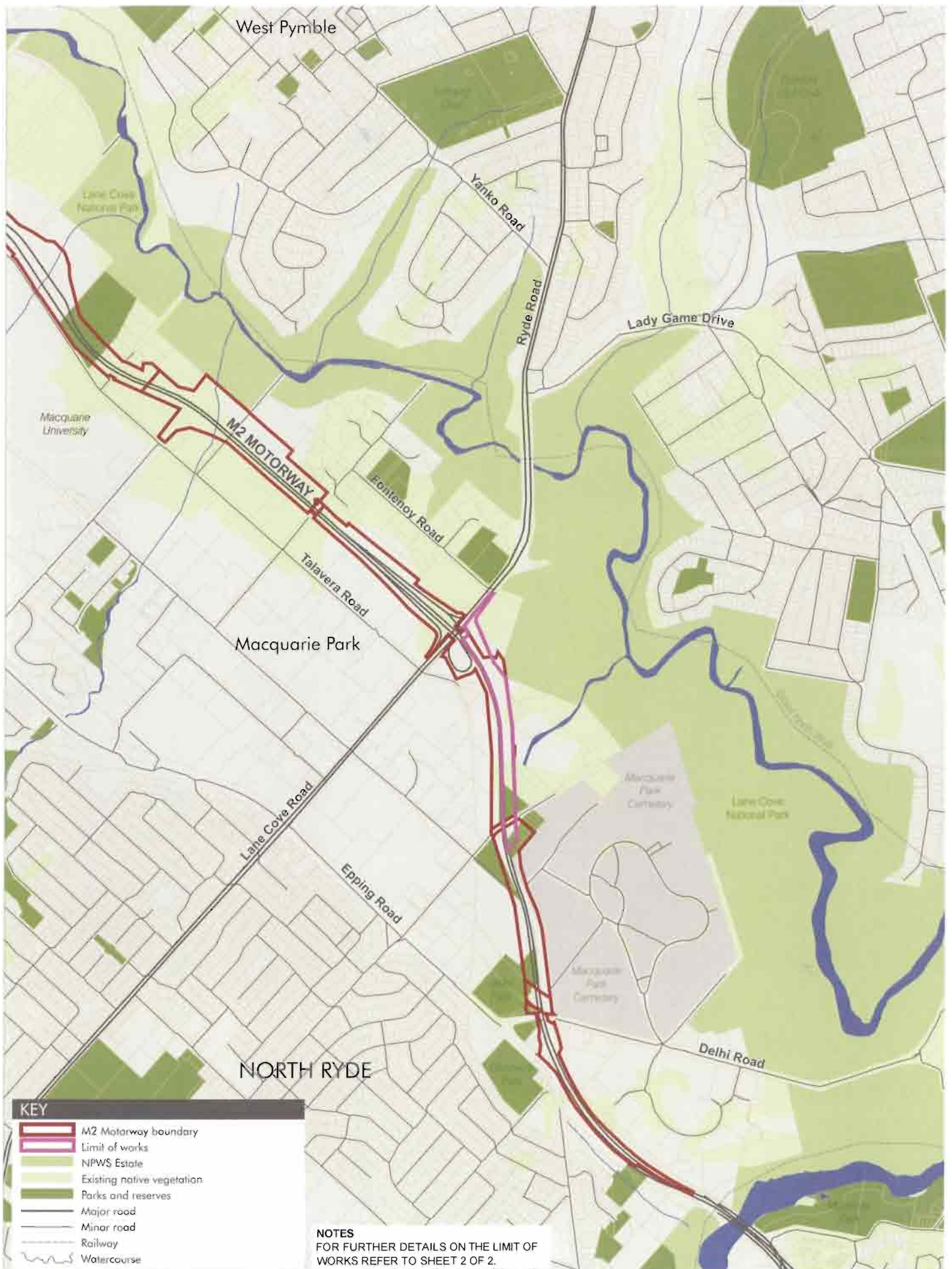
### Schedule 3 Construction Completion Pre-conditions

#### (clause 1.1)

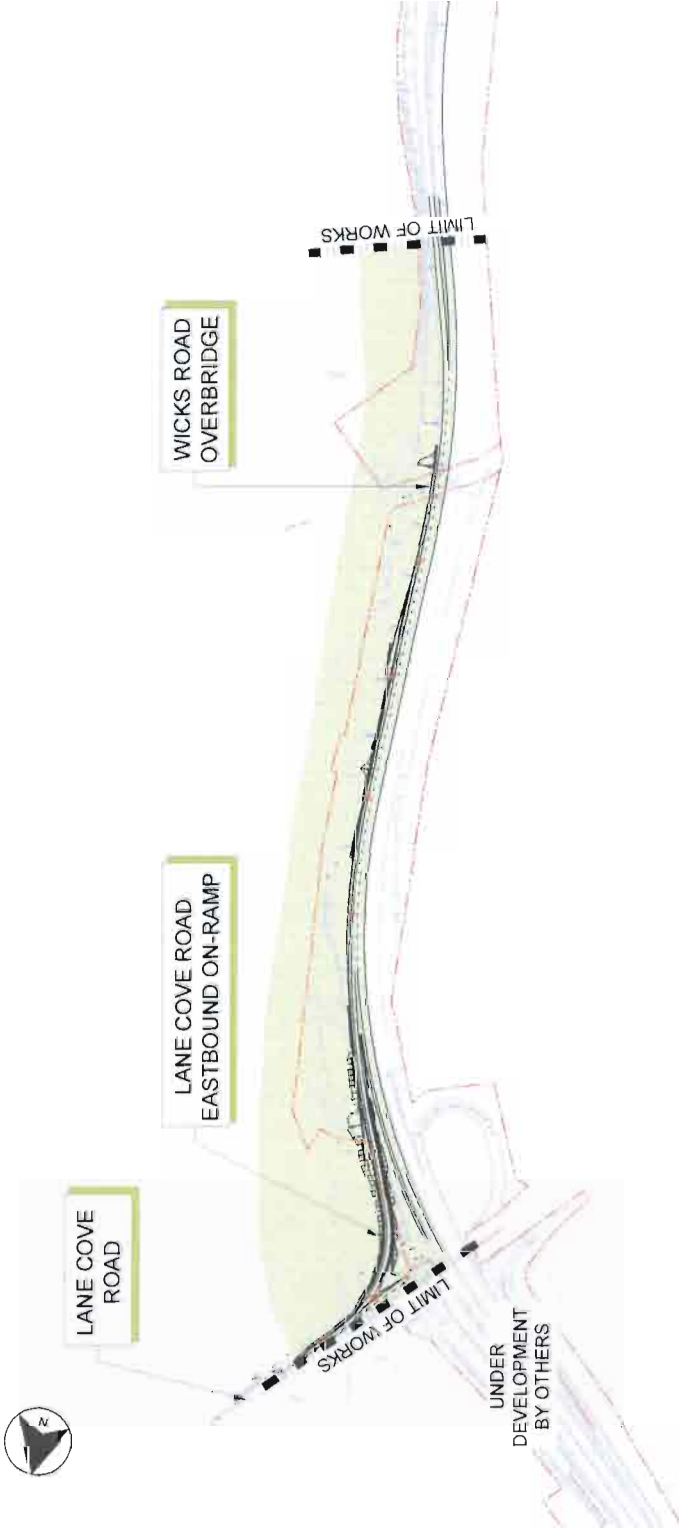
1. In respect of Stage 1, Stage 2, Stage 3 and Stage 3A, the Project Works and the Temporary Works included in each Stage must be completed in accordance with the M2 Upgrade Project Deed except for minor Defects that:
  - (a) do not prevent the M2 Motorway from being reasonably capable of being used for the safe, efficient and continuous passage of motor vehicles;
  - (b) the Independent Verifier determines that Hills Motorway has reasonable grounds for not promptly rectifying; and
  - (c) can be rectified without prejudicing the safe, efficient and continuous passage of vehicles on the M2 Motorway.
2. In respect of Stage 1, Stage 2, Stage 3 and Stage 3A, RMS has been provided with:
  - (a) all certificates required by the Certification Schedule (other than the certificates or statements (as the case may be) required in respect of Property Works under clause 8.9(a)(ii));
  - (b) a copy of the independent road safety audits required by section 7.17 of the Scope of Works and Technical Criteria;
  - (c) copies of Approvals from Authorities for the drainage design pursuant to section 7.12.1(c) of the Scope of Works and Technical Criteria;
  - (d) copies of all Approvals required to open, use and operate the Stage;
  - (e) evidence of the insurance policies required by clause 15.4 being effected in accordance with the M2 Upgrade Project Deed; and
  - (f) a notice in accordance with clause 5.3 of the M2 Upgrade Project Deed.
3. In addition to the requirements set out in paragraphs 1 and 2, in respect of Stage 3, the structure and materials of the Norfolk Road twin tunnels and the tunnel fire protection system are to the satisfaction of the New South Wales Fire Brigade.

**Appendix F - Appendix 1 to Exhibit A to the Upgrade Project Deed**

**Appendix 1 Location Sketch**



**Appendix 1 - Location Sketch**  
SHEET 1 OF 2



FOR INFORMATION ONLY

INFORMATION DOCUMENT

60267595-IFD-10-0000-RD-20121018\_GA\_OVERALL 92

M2 LANE COVE ROAD ON-RAMP

M2 LANE COVE ROAD - ON RAMP  
APPENDIX 1  
LOCATION SKETCH  
SHEET 2 OF 2



ACCUM CONSULTANTS (UK) LTD

**Appendix G - Appendix 2 to Exhibit A to the Upgrade Project Deed**

**Appendix 2 Project Site**



LOCAL BLOCK WORK WALLS  
AVERAGE 600mm HIGH

SIGNAGE FOR SOUTHBOUND TRAFFIC TO CLEARLY INDICATE WHICH LEFT TURN TO TAKE FOR ACCESS TO M2 EASTBOUND AND WESTBOUND CARRIAGEWAYS. SIGNAGE / ROAD MARKINGS TO ACCOMMODATE PROPOSED BUS LANE

ALLOW FOR PAVEMENT TERMINAL

POTENTIAL TOLL GANTRY LOCATION

POTENTIAL TECH SHELTER LOCATION

OVER HEIGHT DETECTION GANTRY

QUEUING LOOP DETECTOR

LEGEND	
	M2 LEASED BOUNDARY
	LIMIT OF WORKS
	ROAD CONTROL LINE
	CADASTRAL
	PROPOSED SAFETY BARRIER (G4)
	NEW RETAINING WALL
	S3
	EXISTING SIGNS
	EXISTING LIGHTING (REMAINS)
	EXISTING LIGHTING (REMOVED)
	NEW LIGHTING
	ASPHALT OVERLAY TO MATCH EXISTING
	FLEXIBLE PAVEMENT
	CONCRETE PAVEMENT
	PERMANENT LAND REQUIRED FOR MOTORWAY
	LAND REQUIRED FOR LOCAL ROADS

FOR INFORMATION ONLY

M2 LANE COVE ROAD ON-RAMP

M2 LANE COVE ROAD - ON RAMP  
APPENDIX 2  
PROJECT SITE  
SHEET 1 OF 3

SCALE  
1:1000  
FULL SHEET AS SHOWN

INFORMATION DOCUMENT

DOCUMENT NO.  
 PROJECT NO. 60267595-IFD-10-0000-RD-20121018\_GA\_01



**LEGEND**

- M2 LEASED BOUNDARY
- LIMIT OF WORKS
- ROAD CONTROL LINE
- CADASTRAL
- PROPOSED SAFETY BARRIER (G4)
- NEW RETAINING WALL
- EXISTING SIGNS
- EXISTING LIGHTING (REMAINS)
- EXISTING LIGHTING (REMOVED)
- NEW LIGHTING
- ASPHALT OVERLAY TO MATCH EXISTING
- FLEXIBLE PAVEMENT
- CONCRETE PAVEMENT
- PERMANENT LAND REQUIRED FOR MOTORWAY
- LAND REQUIRED FOR LOCAL ROADS

**FOR INFORMATION ONLY**

**INFORMATION DOCUMENT**

M2 LANE COVE ROAD ON-RAMP  
APPENDIX 2  
PROJECT SITE  
SHEET 2 OF 3

60267595-IFD-10-0000-RD-20121018\_GA\_02

95





**LEGEND**

- M2 LEASED BOUNDARY
- LIMIT OF WORKS
- ROAD CONTROL LINE
- CADASTRAL
- PROPOSED SAFETY BARRIER (G4)
- NEW RETAINING WALL
- EXISTING SIGNS
- EXISTING LIGHTING (REMAINS)
- EXISTING LIGHTING (REMOVED)
- NEW LIGHTING
- ASPHALT OVERLAY TO MATCH EXISTING
- FLEXIBLE PAVEMENT
- CONCRETE PAVEMENT
- PERMANENT LAND REQUIRED FOR MOTORWAY
- LAND REQUIRED FOR LOCAL ROADS

FOR INFORMATION ONLY

**INFORMATION DOCUMENT**

M2 LANE COVE ROAD ON-RAMP

M2 LANE COVE ROAD - ON RAMP

APPENDIX 2

PROJECT SITE

SHEET 3 OF 3

60267595-IFD-10-0000-RD-20121018\_GA\_03



CONTRACTOR

CONSULTANT

**Appendix H - Appendix 6 to Exhibit A to the Upgrade Project Deed**

**Appendix 6 RMS Specification on Work Health & Safety (Construction Works)  
(D&C G22)**

# ROADS AND MARITIME SERVICES (RMS)

## RMS SPECIFICATION D&C G22

### WORK HEALTH AND SAFETY (CONSTRUCTION WORKS)

#### NOTICE

This document is a Roads and Maritime Services D&C Specification. It has been developed for use with Design & Construct roadworks and bridgeworks contracts let by Roads and Maritime Services. It is not suitable for any other purpose and must not be used for any other purpose or in any other context.

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#### REVISION REGISTER

<b>Ed/Rev Number</b>	<b>Clause Number</b>	<b>Description of Revision</b>	<b>Authorised By</b>	<b>Date</b>
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Ed 2/Rev 0		Updated to accord with base (non-D&C) Specification G22 Ed 5/Rev 1.	GM, IC	30.11.12



# WORK HEALTH AND SAFETY (CONSTRUCTION WORKS)

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IC-DC-G22

VERSION FOR: DATE:
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## **FOREWORD**

### **RMS COPYRIGHT AND USE OF THIS DOCUMENT**

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#### **When this document forms part of a deed**

This document should be read with all the documents forming the Project Deed.

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### **BASE SPECIFICATION**

This document is based on RMS QA Specification G22 Edition 5 Revision 1.

# **RMS SPECIFICATION D&C G22**

## **WORK HEALTH AND SAFETY (CONSTRUCTION WORKS)**

### **1 GENERAL**

#### **1.1 SCOPE**

This specification applies to all construction work as defined in clause 1.2.4 and chapter 6 of WHS Regulation 2011.

These works can only be carried out by a contractor with a WHS Management System accredited for RMS works under the NSW Government's WHS Management Systems Guidelines, and who have developed a Site-specific WHS management plan prior to commencing the works.

This document defines the health and safety requirements that you must observe prior to and during the execution of the Works Under the deed.

#### **1.2 STRUCTURE OF THE SPECIFICATION**

This Specification includes a series of annexures that detail additional requirements unless specified as guidelines.

##### **1.2.1 Project Specific Work Health and Safety Issues**

##### **1.2.2 (Not Used)**

##### **1.2.3 Schedules of HOLD POINTS and Identified Records**

The schedules in Annexure G22/C list the **Hold Points** that must be observed. Refer to Specification RMS D&C Q6 for the definition of **Hold Points**.

The records listed in Annexure G22/C are Identified Records for the purposes of RMS D&C Q6 Annexure Q/E.

##### **1.2.4 Referenced Documents**

Standards, specifications and test methods are referred to in abbreviated form (e.g. AS 2350). For convenience, the full titles are given in Annexure G22/M.

### **1.3 DEFINITIONS**

The definitions given in WHS Act and WHS Regulations apply to this specification.

The definitions used in ISO 9000 for nonconformity (nonconformance), corrective action and preventive action apply where they can be extended to apply to WHS management and are not inconsistent with AS/NZS 4804.

The terms "you" and "your" mean "the Contractor" and "the Contractor's" respectively.



‘WHS Act’ and ‘WHS Regulation’, in this document refer to the NSW WHS Act 2011 and the NSW WHS Regulation 2011 respectively.

Below are summarised versions of relevant terms in the WHS Act and WHS Regulation:

- (a) **Asset / Property Damage Incident:** where an incident has resulted in property damage but no injury/illness to worker(s).
- (b) **Construction Project** is a project that involves construction work where the cost of the construction work is \$250,000 or more.
- (c) **Construction Work** means any work carried out in connection with the construction, alteration, conversion, fitting out, commissioning, renovation, repair, maintenance, refurbishment, demolition, decommissioning or dismantling of a structure.
- (d) **Dangerous Incident** means an incident in relation to a workplace that exposes a worker or any other person to a serious risk to a person’s health or safety emanating from an immediate or imminent exposure to:
  - (i) an uncontrolled escape, spillage or leakage of a substance, or
  - (ii) an uncontrolled implosion, explosion or fire, or
  - (iii) an uncontrolled escape of gas or steam, or
  - (iv) an uncontrolled escape of a pressurised substance, or
  - (v) electric shock, or
  - (vi) the fall or release from a height of any plant, substance or thing, or
  - (vii) the collapse, overturning, failure or malfunction of, or damage to, any plant that is required to be authorised for use in accordance with the regulations, or
  - (viii) the collapse or partial collapse of a structure, or
  - (ix) the collapse or failure of an excavation or of any shoring supporting an excavation, or
  - (x) the inrush of water, mud or gas in workings, in an underground excavation or tunnel, or
  - (xi) the interruption of the main system of ventilation in an underground excavation or tunnel, or
  - (xii) any other event prescribed by the regulations, but does not include an incident of a prescribed kind.
- (e) **High Risk Construction Work** means construction work that:
  - (i) involves a risk of a person falling more than 2 metres, or
  - (ii) is carried out on a telecommunication tower, or
  - (iii) involves demolition of an element of a structure that is load-bearing or otherwise related to the physical integrity of the structure, or
  - (iv) involves, or is likely to involve, the disturbance of asbestos, or
  - (v) involves structural alterations or repairs that require temporary support to prevent collapse, or
  - (vi) is carried out in or near a confined space, or
  - (vii) is carried out in or near:
    - a shaft or trench with an excavated depth greater than 1.5 metres, or
    - a tunnel, or
  - (viii) involves the use of explosives, or
  - (ix) is carried out on or near pressurised gas distribution mains or piping, or
  - (x) is carried out on or near chemical, fuel or refrigerant lines, or

- (xi) is carried out on or near energised electrical installations or services, or
  - (xii) is carried out in an area that may have a contaminated or flammable atmosphere, or
  - (xiii) involves tilt-up or precast concrete, or
  - (xiv) is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor that is in use by traffic other than pedestrians, or
  - (xv) is carried out in an area at a workplace in which there is any movement of powered mobile plant, or
  - (xvi) is carried out in an area in which there are artificial extremes of temperature, or
  - (xvii) is carried out in or near water or other liquid that involves a risk of drowning, or
  - (xviii) involves diving work.
- (f) **Injury / Illness Incident:** where an incident has resulted in an injury or illness including Loss Time, Medically Treated or First Aid Treatment.
- (g) **Not Used**
- (h) **Near Miss Incident:** where an incident has occurred which had potential for an injury/illness or property damage but has not resulted in injury/illness or property damage.
- (i) **Notifiable Incident** means:
- (i) the death of a person, or
  - (ii) a serious injury or illness of a person, or
  - (iii) a dangerous incident.
- (j) **Principal** means the “RMS Representative” as defined in the Project Deed.
- (k) **Person Conducting a Business or Undertaking (PCBU):** a person conducts a business or undertaking.
- (i) whether the person conducts the business or undertaking alone or with others, and
  - (ii) whether or not the business or undertaking is conducted for profit or gain
- (l) **Principal Contractor** means:
- (i) A person conducting a business or undertaking that commissions a construction project is the principal contractor for the project
  - (ii) If the person referred to in (1) engages another person conducting a business or undertaking as principal contractor for the construction project and authorises the person to have management or control of the workplace and to discharge the duties of a principal contractor, the person so engaged is the principal contractor for the project
  - (iii) If the owner of residential premises is an individual who directly or indirectly engages a person conducting a business or undertaking to undertake a construction project in relation to the premises, the person so engaged is the principal contractor for the project if the person has management or control of the workplace
  - (iv) A construction project has only one principal contractor at any specific time
- (m) **Safe Work Method Statement (SWMS)** means:
- (i) in relation to electrical work on energised electrical equipment - a safe work method statement prepared under clause 161 WHS Regulation 2011,
  - (ii) in relation to high risk construction work - a safe work method statement referred to in clause 299 (as revised under clause 302) of WHS Regulation 2011

Safe Work Method Statement (SWMS) required for high risk construction work is a document that:

- (iii) identifies the work that is high risk construction work
- (iv) specifies hazards relating to the high risk construction work and risks to health and safety associated with those hazards
- (v) describes the measures to be implemented to control the risks
- (vi) describes how the control measures are to be implemented, monitored and reviewed

**(n) Serious Incident / Serious Near Miss:** An incident which has potential for or has caused: death of a person, serious injury or illness and/or significant property damage.

**(o) Serious Injury or Illness** of a Person means an injury or illness requiring the person to have:

- (i) immediate treatment as an in-patient in a hospital, or
- (ii) immediate treatment for:
  - the amputation of any part of his or her body, or
  - a serious head injury, or
  - a serious eye injury, or
  - a serious burn, or
  - the separation of his or her skin from an underlying tissue (such as degloving or scalping), or
  - a spinal injury, or
  - the loss of a bodily function, or
  - serious lacerations, or
- (iii) medical treatment within 48 hours of exposure to a substance

and includes any other injury or illness prescribed by the regulations but does not include an illness or injury of a prescribed kind.

**(p) Structure** means anything that is constructed, whether fixed or moveable, temporary or permanent, and includes:

- (i) A roadway or pathway
- (ii) Buildings, masts, towers, framework, pipelines, transport infrastructure and underground works (shafts or tunnels), and
- (iii) Any component of a structure, and
- (iv) Part of a structure

**(q) Worker** means a person carries out work in any capacity for a person conducting a business or undertaking, including work as:

- (i) An employee
- (ii) A contractor or subcontractor
- (iii) An employee of a contractor or subcontractor
- (iv) An employee of a labour hire company who has been assigned to work in the person's business or undertaking
- (v) An outworker
- (vi) An apprentice or trainee
- (vii) A student gaining work experience
- (viii) A volunteer
- (ix) A person of a prescribed class

- (r) **Workplace** means a place where work is carried out for a business or undertaking and includes any place where a worker goes, or is likely to be, while at work.

## **2 GENERAL WORK HEALTH AND SAFETY REQUIREMENTS**

### **2.1 CONTRACTOR REQUIREMENTS**

As a minimum requirement, you must:

- (a) comply with all the duties of an PCBU and occupier as stated in the WHS Act and its associated WHS Regulation, and
- (b) maintain and demonstrate compliance with the requirements of the WHS Regulation.

Under part 2 of the WHS Act, you must ensure the health, safety and welfare at work of workers, and of anyone else who may be present at a work site. This means that all personnel must take sufficient steps to provide a working environment that is safe and without risk to health.

### **2.2 LEADERSHIP AND COMMITMENT**

You must demonstrate leadership and commitment for successfully managing work health and safety of all persons, including workers and any subcontractors and agents engaged by you, RMS' workers and members of the public who may be affected by services under the deed.

Your commitment can be demonstrated and measured through following but not limited to:

- (a) WHS considerations incorporated into the decision making processes throughout the planning, procurement, construction and evaluation stages of the project
- (b) you actively implement the conditions of the contract relating to WHS standards
- (c) you actively monitor compliance with WHS requirements both within your organisation and by contractors engaged by you
- (d) where appropriate time and resources are provided to promoting and improving WHS performance
- (e) ensure that work is able to be completed safely

### **2.3 COMPLIANCE**

Comply with, and ensure that your workers, subcontractors and agents comply with any Acts, regulations, local laws and by-laws, Codes of Practice, and Australian Standards relating to WHS that are applicable to the Works Under the deed.

Comply with RMS' WHS policies and procedures which are in any way applicable to the deed or the performance of Works Under the deed. Copies of relevant RMS' WHS policies can be obtained at the following internet address:

<http://www.rta.nsw.gov.au/doingbusinesswithus/tendercontracts/contractorhealthsafetyinformation.html>

Comply with all WHS policies, procedures or measures implemented or adopted by the occupiers of any premises at or within which you will perform Works Under the deed.

In the event of any inconsistency, adopt such procedures or measures that produce the higher level of health and safety.

Comply with any and all directions of RMS Representative relating to this Specification.

### **3 MANAGEMENT SYSTEM REQUIREMENTS**

#### **3.1 WHS MANAGEMENT SYSTEM**

Develop a documented management system complying with the WHS Act and the latest edition of the NSW Government WHS Management System Guidelines.

#### **3.2 PROJECT WHS MANAGEMENT PLAN**

##### **3.2.1 General**

Ensure, as far as reasonably practicable, that each worker who is to carry out construction work in connection with the deed is, before commencing work, made aware of the content of the Project WHS Management Plan for the workplace.

The Project WHS Management Plan must be developed and documented as per WHS Regulation clause 309 and NSW government WHS Guidelines incorporating a Site-specific Safety requirements and Safe Work Method Statements, which must adequately address all WHS issues particular to the Site.

The Project WHS Management Plan must include all elements as per Annexure G22/D.

The Project WHS Management Plan may be either incorporated as a discrete and readily identifiable part of the PROJECT QUALITY PLAN (refer RMS D&C Q6), or separate from but consistent with the PROJECT QUALITY PLAN. Appropriate cross-referencing to your quality management system and PROJECT QUALITY PLAN must be included.

The Project WHS Management Plan and Safe Work Method Statements must, as a minimum, comply with the requirements stated in Annexure G22/D.

Submit a digital copy (or three hard copies, if requested by RMS Representative) of the Project WHS Management Plan and supporting documentation for review by RMS Representative.

#### **HOLD POINT**

Process Held:	Commencement of Work Under the deed.
Submission Details:	Project WHS Management Plan, supporting plans and relevant WHS management system documentation and risk assessment and risk control plans, addressing the issues listed in Clause 3.2.
Release of Hold Point:	RMS Representative will assess the above documents for completeness and compliance with RMS requirements prior to authorising the release of the Hold Point.

### **3.2.2 Staged Submission**

You may submit your Project WHS Management Plan progressively to suit the construction stages, provided that you have complied with the requirements in Specification RMS D&C Q6 for staged submission of the PROJECT QUALITY PLAN.

The initial submission must however include:

- (a) Site-specific Safety Controls for managing risk;
- (b) Documented risk assessment and risk control plan, completed in accordance with the requirements of part 3.1 of the WHS Regulation addressing all the relevant activities of the first three months of construction. Where you are required to perform or arrange for the performance of any of the high-risk activities listed at part 4.5 of the WHS Regulation, the risk assessment and risk control plan must as a minimum requirement address the relevant factors listed in Annexure G22/H, H1 to H15 respectively; and
- (c) Safe Work Method Statements (SWMS) for all activities assessed as having a health and safety risk and/or high-risk construction activities as listed in Chapter 6 Division 2 of the WHS Regulation addressing all the relevant activities of the first three months of construction.
- (d) The risk assessment and SWMS must be reviewed frequently to reflect changes at the site which includes but not limited to changes in personnel, plant and equipment, process or work hours.

### **HOLD POINT AND AUDIT VERIFICATION**

Process Held:	Commencement of work not previously released under other Hold Points.
Submission Details:	Documentation which has been not provided under previous Hold Points, within 5 working days prior to commencement of the Project Works.
Release of Hold Point:	RMS Representative will assess the safety plans and risk assessment and risk control system, prior to authorising the release of the Hold Point for the work nominated in the submission.

Whether submitted in full or in stages, the relevant part of the Plan must be made available to workers working at the site during construction of the particular stage of the Project Works.

### **3.2.3 Changes to Project WHS Management Plan**

The Project WHS Management Plan is a controlled document.

Review and revise the Project WHS Management Plan to ensure that it remains up to date. The revision is required but not limited under any of the following situations:

- (a) there is evidence the risk assessment is no longer valid; or
- (b) subsequent injury indicates the assessment of the risk may not have been adequate; or
- (c) significant changes are proposed in the work that is being carried out.

Ensure, so far as reasonably practicable, that each person carrying out construction work in connection with the deed is made aware of any revision to the WHS management plan.

### **3.2.4 Corrective Action**

RMS Representative may require corrective action to be implemented prior to authorising commencement of work, or may allow commencement conditional on the corrective actions being satisfactorily implemented. An activity subject to corrective action must not commence prior to the corrective action being undertaken.

The decision to authorise commencement of work, or to require corrective action to be taken, is solely at the discretion of RMS Representative and/or its authorised representatives, and will be based on an assessment of whether your plans satisfy relevant requirements of this Specification.

## **4 WHS MANAGEMENT**

In addition to the requirements of the WHS Regulation, comply with the requirements of NSW Government WHS Guidelines and the following:

### **4.1 MANAGEMENT RESPONSIBILITY**

The WHS responsibility of project senior management team and managers must be outlined clearly in the project specific WHS management plan.

The roles, responsibilities must meet the requirements of Part 2 of the WHS Act including the name, qualifications and experience of your Site Safety Representative who has primary responsibility for ensuring that the Project WHS management plan is fully implemented on project site.

Your nominated Site Safety Representative must be a full time member of your site management team and must be in regular attendance on the site throughout the duration of the deed.

You must also comply with the additional duties as listed in part 6.4 of the WHS Regulation.

### **4.2 COMMUNICATION AND CONSULTATION**

You must comply with RMS Consultation Strategy and Consultation Procedure. The policies and procedures can be accessed through RMS Internet or can be requested through RMS Work Health and Safety Branch. The contractor consultation arrangement must comply with the provisions of Part 5 of the WHS Act. The arrangements you make to conduct WHS consultation on site in accordance with the requirements of the WHS Act and the WHS Regulation must be outlined in the Project WHS Management Plan.

Ensure that consultative arrangements on the site provide for consultation between subcontractor worker representatives and other stakeholders. The consultation procedure or process must include issue resolution process.

### **4.3 CONTRACTORS AND SERVICE PROVIDERS**

#### **4.3.1 Subcontractor Site-specific Safety Management Plan and Safe Work Method Statement**

Where a subcontractor is engaged by you or on your behalf to perform any activities, provide the subcontractor with copies of those sections of the Project WHS Management Plan and site specific plan that are relevant to the work to be performed by the subcontractor.

Ensure that the subcontractor prepare compatible Site-specific Safety Management Plans and Safe Work Method Statements (for all the work defined as high risk construction work or as requested by RMS Representative), at least equivalent to that detailed at Annexure G22/D, prior to commencing work at the site. The documents must be reviewed by you for completeness and approved by RMS Representative prior to commencement of the activity.

The subcontractor may use the format of your Site-specific Safety Management Plan if they so choose. A subcontractor may prepare safety system documentation in conjunction with you; however, all of these documents must be presented under the subcontractor's letterhead, must show the name and the registered office address of the subcontractor, and be signed and dated by a senior management representative of the subcontractor.

Ensure that your subcontractors provide you with copies of any amended Site-specific Safety Management Plans or Safe Work Method Statements before the work associated with the amendments commences.

Submit the subcontractor's Site-specific Safety Management Plan to RMS Representative, in accordance with Clause 3.2 prior to commencement of the activity to be carried out by the subcontractor on site.

#### **4.3.2 Control of Subcontractors**

Where the deed specifies RMS Prequalification for a subcontractor, and the Prequalification level nominated includes WHS Management System requirements, the subcontractor must apply its RMS accredited WHS management systems for its construction activities.

Undertake appropriate monitoring of every subcontractor's work to ensure that the specified WHS system requirements are effectively implemented and all work is carried out without an unacceptable level of risk.

For work carried out by subcontractors, include in the Project WHS Management Plan the processes you will implement to ensure subcontractor compliance, including details of:

- (a) the duties of each subcontractor;
- (b) the duties you will retain for management of site safety issues;
- (c) your surveillance program to monitor and document effectiveness of each subcontractor's safety management systems; and
- (d) the actions you will take against subcontractors in the event they are found not to be working to the requirements of the Site-specific Safety Management Plans and Safe Work Method Statements.

#### **4.3.3 Assessment of Contractor's / Subcontractor's Documents**

RMS Representative will review the documents for completeness and compliance with RMS requirements prior to authorising the commencement of the works under the deed.

RMS Representative may require corrective action be implemented prior to authorising commencement of works, or may allow commencement, conditional on the corrective actions being satisfactorily implemented. No activity subject to corrective action must commence prior to the corrective action being undertaken.

The decision to authorise commencement of works, or to require traditional measures to be taken to reduce the WHS risks, is solely at the discretion of RMS Representative and/or its authorised



representatives, and will be based on an assessment of whether your Safe Work Method Statements satisfy relevant requirements set out in this Specification.

#### **4.4 PURCHASING**

Develop an appropriate system for addressing WHS issues during the purchasing process and, as a minimum, comply with the requirements outlined in the NSW Government WHS Management System Guidelines.

All plant and equipment purchased must meet the minimum requirements stated in WHS Regulation and RMS project specific procurement guidelines, if any.

#### **4.5 DESIGN**

The designer of a structure must comply with the requirements of Section 6.2 of the WHS Regulation. The designer of a structure or any part of a structure that is to be constructed must give RMS or its representative and you, a written report that specifies the hazards construction work relating to the design of the structure that, so far as the designer is reasonably aware:

- (a) create a risk to the health or safety of persons who are to carry out any project work on the structure or part, and
- (b) are associated only with the particular design and not with other designs of the same type of structure.

Clients need to consult, co-operate and co-ordinate activities with all other persons who have a health and safety duty in relation to the same matter. The aim of this consultation is to share information regarding hazards and risks to assist in their elimination or minimisation.

In addition to the above, where construction has commenced, you must actively participate in the ongoing review and development of safety in the design document, in line with any design changes or progress, culminating in the hand over of all WHS related information and documentation that will assist the following phases of the project (i.e. maintenance or demolition). Comply with the Code of Practice for safe design of building and structures. Annexure G22/E can be used for facilitating the workshops.

#### **4.6 RISK MANAGEMENT**

Develop appropriate documentation and, as a minimum, comply with the requirements outlined in the WHS Regulation.

##### **4.6.1 Risk Assessment and Risk Control Plans**

In managing risks to health and safety, you must take reasonable steps to:

- (a) eliminate risks to health and safety so far as is reasonably practicable, and
- (b) if it is not reasonably practicable to eliminate risks to health and safety - minimise those risks as far as reasonably practicable.

Prepare and submit a risk assessment and risk control plan in conformity with the requirements of your WHS System prior to commencing Works Under the deed. Submit this risk assessment and control plan using forms from your WHS System. The form at Annexure G22/F is provided as a guide. The risk assessment and risk control plan must address all site specific hazards and risks and their control mechanism.

The completed risk assessment and control plan must relate to site specific and/or project specific risks and must be submitted to RMS Representative for assessment prior to commencement of Works Under the deed. Develop risk controls in a hierarchy in accordance with the definitions provided in Chapter 2 Clause 35 of the WHS Regulation.

Review the risk assessment and risk control plan monthly or under any of the following situations:

- (i) there is evidence the risk assessment is no longer valid; or
- (ii) subsequent injury indicates the assessment of the risk may not have been adequate; or
- (iii) significant changes are proposed in the work that is being carried out.

Provide written certification to RMS Representative each month that the plan covers all proposed activities with identified risks. This certification is a component of the Monthly Contractor WHS Report found in Annexure G22/L. Where new risks have been identified, certify that these risks have been addressed in accordance with this Clause.

In Annexure G22/G is a Hazard Identification and Risk Control Table that provides examples of generic hazards. This table is provided for your guidance only.

#### **4.6.2 Identified Risk Activities**

Without limiting the requirements of Clause 3.2 or the requirement to develop Site-specific Safety Management Plans and Safe Work Method Statements, where any of the following activities are performed under this deed, give specific and detailed consideration to them in conducting risk assessments and developing risk control plans:

- (i) Manual handling;
- (ii) Use, installation, inspection and/or repair of plant and equipment;
- (iii) Working at heights;
- (iv) Working in confined spaces;
- (v) Vehicle movement on site;
- (vi) Hazardous substances and dangerous goods;
- (vii) Electrical work;
- (viii) Prestressing;
- (ix) Blasting using explosives;
- (x) Work near underground and/or overhead utilities;
- (xi) Working in traffic;
- (xii) Excavation;
- (xiii) Drilling and piling;
- (xiv) Asbestos removal;
- (xv) Working exposed to UV and/or other harmful radiation from any radioactive sources;
- (xvi) Working in noise;
- (xvii) Abrasive blasting;
- (xviii) Welding;
- (xix) Electroplating;
- (xx) Working with molten metal and/or 'hot' work;

- (xxi) Working with lead;
- (xxii) Demolition work;
- (xxiii) Spray painting and abrasive blasting;
- (xxiv) Working with synthetic fibres and
- (xxv) All high risk construction activities as listed in Schedule 3 of WHS Regulation.

Specific issues to be addressed by you for the above activities are listed at Annexure G22/H Sections H1 to H15 respectively. These checklists provide guidance on minimum requirements for addressing hazards associated with each of the listed high risk activities. Notwithstanding this, identify and address all additional WHS issues found to be associated with these hazards.

Tunnelling work must take into account the recommendations contained in WorkCover Code of Practice 2006 “Tunnels under Construction” and Guide for Tunnelling Work 2012 by Safe Work Australia.

## **4.7 TRAINING**

### **4.7.1 Health and Safety Induction**

All workers must be inducted to the Contractor Site-specific Safety System and site safety rules prior to the commencement of work. This training must include training related to hazards likely to be encountered on site, and the control measures that have been developed in response to these hazards. Identify any different training needs, including new work activities, which will arise at different stages of the project and prepare and implement a program to meet these different training needs.

Regularly review and update the WHS induction training to ensure that the health and safety issues covered remain relevant to changing circumstances on the work site.

For all construction work, conduct a health and safety induction for all workers (including subcontractors) in accordance with the requirements of part 6.5 (General Construction Induction Training) of the WHS Regulation. Do not allow a person to carry out work on the site until you are satisfied that the person has completed the prerequisite WHS induction training which comprises general induction, work activity WHS induction and site specific WHS induction.

### **4.7.2 Task Specific Training**

You must ensure that information, training and instruction provided to a worker is suitable and adequate having regard to:

- (a) the nature of the work carried out by the worker, and
- (b) the nature of the risks associated with the work at the time the information, training or instruction is provided, and
- (c) the control measures implemented.

All workers must also complete task specific training developed by the person with control of the construction work, in consultation with other duty holders, including any subcontractor in charge of the task, during the planning and preparation stage wherever possible. The training must be regularly reviewed and updated whenever there are changes to the tasks, processes, systems of work, plant and substances that may affect health and safety.

Names of persons trained and the date the training was provided must be maintained.

In addition to the above requirements, you must ensure also that all managers, supervisors and workers have received appropriate training in their WHS responsibilities. Training record must be maintained at least for 2 years or the life of project whichever is greater.

## **4.8 INSPECTION, TESTING AND SERVICING**

### **4.8.1 General**

All plant equipments must be inspected and tagged. The register of testing and tagging must be maintained as per requirements of WHS Regulation. Develop an appropriate system for conducting regular inspections and, as a minimum, comply with the requirements outlined in the WHS Regulation and NSW Government WHS Management System Guidelines for inspection and testing. This documentation may form part of your construction inspection and test plans developed in accordance with RMS D&C Q6.

### **4.8.2 Health and Safety Inspections**

Conduct health and safety inspections as defined in site safety management plan or risk assessment. The inspection is carried out to identify hazards associated with work performed under the deed. Inspection of works must include work performed by subcontractors. Records of the inspections must be kept on site.

Maintain a high standard of housekeeping on site, with all areas kept clean and tidy, and regular collection and removal of rubbish. RMS Representative may also conduct its own health and safety inspections.

A general health and safety inspection checklist is at Annexure G22/K. This checklist is intended as a guide only and may be modified to suit specific project or site health and safety requirements.

Following the inspection, act on the risks identified by the inspection, and take appropriate corrective actions. Document them in accordance with Clause 4.9.3.

If surveillance indicates a nonconformity of safety requirements, RMS Representative is entitled to conduct a safety management system audit at 24 hours notice to you.

Ensure that appropriate and timely action is taken to eliminate or reduce identified hazards.

### **4.8.3 Contractor's Obligations with Respect to Plant and Equipment**

You must ensure that processes are in place and implemented for plant items ensuring the requirements for risk assessments are met as per Chapter 5 Division 6 of the WHS Regulation. Certify that plant is safe and will not pose a risk to health and safety when properly used. All plant must comply with the plant requirements listed in Annexure G22/J.

Allow RMS Representative to carry out inspection at any time of any plant or equipment that you bring on to the site for compliance with the plant requirements defined in (a) to (k) below and Annexure G22/J and as defined in the relevant code of practice and manufacturer's guidelines.

You must:

- (a) obtain a completed pre-commencement plant inspection report verifying that the item of plant is suitably maintained and safe to operate;

- (b) have any relevant certificates, licences and permits that are required by the WorkCover Authority of New South Wales (WorkCover), or any other relevant Standard, and make them available to RMS Representative on request;
- (c) maintain the plant and equipment in accordance with manufacturer's standards or certified modification;
- (d) maintain records of inspections (those conducted daily and for other purposes), service, cleaning and/or maintenance and make these available to RMS Representative on request;
- (e) ensure that all work performed in the inspection, servicing, cleaning and/or maintenance of plant is performed by competent persons;
- (f) provide adequate information about the plant to ensure its safe use;
- (g) obtain and review risk assessments for all items of plant prior to them commencing operation on site or carry out risk assessments if risk assessments are not available;
- (h) identify potential hazards associated with the use of plant and equipment, and assess and control risks associated with the use of plant and equipment including provision for persons working in or around plant by the preparation of Safe Work Method Statements in accordance with Clause 3.2;
- (i) ensure that all workers and subcontractors who are required to use or operate plant or equipment are appropriately licensed or certified and have received the necessary training to operate the particular item and/or perform particular tasks. Ensure that they have received and understood plant risk assessment;
- (j) remove any piece of plant or equipment when directed by RMS Representative or WorkCover; and
- (k) make available any piece of plant or equipment when directed by RMS Representative or WorkCover for inspection.

#### **4.8.4 Separation of People and Plant**

Prior to commencement of work, develop controls to address the project site risks associated with workers on foot (for example: exclusion zones, confined footprint, speed restrictions, vehicle movement plans and potential conflict points between workers and mobile plant). Also document the site establishment with:

- (a) planning for parking;
- (b) access to and from the site compound;
- (c) plant servicing and fuelling areas - location, how servicing will occur and which controls are in place.

Document project safety communication requirements to demonstrate how communication between independent parties on site will be established to safely separate workers on foot from moving plant. This includes:

- (i) A site safety communication plan to demonstrate the communication systems in place to eliminate the risk of collision. It must cover communication between the following interfaces:
  - Workers on foot with mobile plant operators
  - Plant operators and work teams
  - Plant operators and plant operators
  - Independent work teams and work teams

- Site marshals and plant operators
  - Site coordinators and site marshals
  - Site marshals and suppliers, subcontractors and plant hire operators and
- (ii) A worker on foot plan, comparable to a vehicle movement plan. This must show clearly marked exclusion zones and safe pedestrian access routes to work areas. Projects must have in place a process for disseminating the workers on foot movement plans as activities changes, for example, as part of the pre-start talk or toolbox talk.

Site marshal is a person who has overall visibility and control of communication mechanism for movement of plant and equipment on site.

#### **4.8.5 Working with or around Utilities**

Prior to commencement of work, develop a strategy and plan for effectively manage work with or around utilities at project site. Take all reasonable steps to:

- (a) Locate and identify utilities within work zone of project site, prior to start of work;
- (b) Carry our risk assessment for all work carried out with or around located utilities;
- (c) Communicate the above effectively with workers working with or around utilities; and
- (d) Implement controls and reasonable steps to eliminate any contact with utilities while work is being carried out.

At the planning stage, you must:

- (i) identify the presence of all underground, above ground or overhead utilities or services, including redundant or disused services at the intended site using:
  - site surveys
  - checks with all utility providers
  - Dial Before You Dig (Telephone Service 1100)
- (ii) check the location, clearance distances, alignments and other relevant information relating to identified services is to be shown on utilities drawings for the work before work commences on the site
- (iii) obtain utilities drawings from Dial Before You Dig and/or from the Utilities Service Providers
- (iv) ensure that such details are clearly marked - graphically and by notations - on these documents. The details must be clear on any fax copy or photocopy of the originals.
- (v) ensure that contact details for all Authorities responsible for the utilities at the site are annotated on the Utilities Sheets(s) for the work proposed and within the specifications

For the management of utilities, consider the application of emerging survey technology and systems to assist in the reduction of utility strikes. In addition to existing method for locating utilities, proposed new technology (which is currently not commonly used) includes but is not limited to:

- (A) Visualisation Technologies
- (B) Seismic Reflection Technology
- (C) Active Acoustic Method
- (D) Selection Assistant for Utility Locating Technologies (SAULT)

Two checklists H10 and H11 included in this specification can be used by you for management of risks associated with utilities and to measure the effectiveness of controls implemented at site.

## **4.9 INCIDENT MANAGEMENT AND CORRECTIVE ACTION**

### **4.9.1 Emergency Planning and Response**

Establish Site-specific Safety Management Plan by carrying out site specific risk assessment and identify the process for site communication, external communication and communication with subcontractors in relation to notification of safety issues and emergencies.

Maintain a current list of relevant contact names, telephone numbers and facsimile numbers for the project. Display contact details on site in accordance with the requirements of WHS Regulation.

You must ensure that an emergency plan is prepared for the workplace that provides for the following:

- (a) emergency procedures, including:
  - (i) an effective response to an emergency, and
  - (ii) evacuation procedures, and
  - (iii) notifying emergency service organisations at the earliest opportunity, and
  - (iv) medical treatment and assistance, and
  - (v) effective communication between the person authorised by the person conducting the business or undertaking to coordinate the emergency response and all persons at the workplace,
- (b) testing of the emergency procedures, including the frequency of testing,
- (c) information, training and instruction to relevant workers in relation to implementing the emergency procedures.

The plan must include the following details of the site:

- (A) emergency organisation, responsibilities, and emergency evacuation systems;
- (B) a list of key personnel with contact details, including all-hours telephone numbers;
- (C) emergency services (e.g. ambulance, fire brigade, spill clean-up services);
- (D) communications strategy (internal and external);
- (E) where information on hazardous materials is kept, each material's potential impact to workers upon exposure and measures to be taken in the event of accidental release.

Develop site specific emergency and rescue / recovery systems / procedures and devote their own resources to them, as it is not appropriate to rely on the emergency services e.g. 000. The emergency equipments must be tested and maintained as per the relevant standards.

### **4.9.2 Reporting of Incidents, Injuries and Disease**

Report all serious incidents (see definition), including serious near miss incidents, to the RMS Representative within 24 hours of the incident or as soon as possible. As required under Part 3 of the WHS Act, you must give notice to WorkCover of any accident or incident occurring during the performance by you of Works Under the deed. You must, at the same time, give a copy of that notice to the RMS Representative within 24 hours.

Where you have been served a notice or fine by WorkCover, then immediately give a copy of that notice or fine to RMS Representative. Also give notice to RMS Representative of the proposed action(s) to rectify the issue raised in the WorkCover notice or fine, and advise RMS Representative when the action has been completed and the issue closed out.

Report all Loss Time Injuries and WorkCover notifiable incidents, to RMS Representative within 24 hours of the incident.

Report to RMS Representative all incidents including Loss Time Injuries, workplace injuries (injuries which require medical attention by a medical practitioner but no loss time), first aid injuries and serious near miss incidents in the monthly report (refer Clause 5 and Annexure G22/L) and logged in by RMS Representative in the RMS incident reporting database. You must keep a record of each notifiable incident for at least 5 years from the day that notice of the incident is given to the regulator under this section.

All serious incidents including serious near miss incidents must be investigated and initial report of investigation submitted to the principal within one week of the incident. Detailed investigation report containing corrective actions and close out must be submitted to the principal within 4 weeks of the incidents. RMS Representative may request a copy of all incident investigation reports where deemed.

### **4.9.3 Corrective Action**

Ensure that WHS issues are appropriately addressed and similar issues do not recur and, as a minimum, comply with the requirements outlined in the WHS Regulation for corrective action. This documentation may form part of your Project Quality Plan developed in accordance with RMS D&C Q6, with the WHS aspects readily identifiable.

If you fail to comply with your safety obligations under the deed, including failure to:

- (a) comply with, and to ensure compliance by subcontractors with, any requirements of the Specification involving WHS issues; or
- (b) act promptly by identifying, isolating and correcting issues when safety system controls are observed not to be effective by you, RMS Representative, or by any Statutory Authority having jurisdiction over the Works,

a Hold Point may apply.

<b>HOLD POINT</b>	(Where required by RMS Representative)
Process Held:	The Process/es related to the noncompliance.
Submission Details:	Verification that the noncompliance has been rectified, and measures have been implemented to prevent recurrence.
Release of Hold Point:	RMS Representative will consider the submitted documents and may inspect the work subject to the failure prior to authorising the release of the Hold Point.

For all serious incidents, serious near miss incidents, undertake an incident investigation as outlined in Clause 4.9.2 to determine the causes, and implement corrective actions to prevent a recurrence. Document all such investigations and their corrective actions. Close out all such corrective actions within four weeks of the incident date and communicate this to RMS Representative in the monthly report.



RMS Representative may participate in, or undertake an investigation into, the incident/injury or illness as and if it is deemed necessary. Cooperate with and provide assistance to RMS Representative in any investigation organised or undertaken by RMS Representative.

#### **4.10 HANDLING, STORAGE, PACKAGING AND DELIVERY**

Develop appropriate documentation for materials handling and manual handling of materials and, as a minimum, comply with the requirements outlined in the WHS Regulation for handling, storage, packaging and delivery.

This documentation must include, but not be limited to, those hazards associated with manual handling, plant and hazardous substances. Regulatory requirements and guidance in relevant codes of practice for managing these hazards must be followed.

Procedures may form part of your construction method statements developed in accordance with RMS D&C Q6 and the WHS aspects readily identifiable.

For management of hazardous chemical, comply with Chapter 7 of the WHS Regulation. The hazardous chemicals and dangerous goods must be labelled, stored properly, risk assessed; a register is maintained with up-to-date material safety datasheets readily accessible at site.

#### **4.11 INTERNAL WHS REVIEWS**

Perform WHS audits as required under your WHS system and make the records of these audits available to RMS Representative upon request. Ensure that any nonconformities identified are notified to RMS Representative and corrective action taken within four weeks or as agreed with RMS Representative and submit monthly status of corrective actions to RMS Representative.

In addition to this, establish a program of internal review in accordance with the NSW Government guidelines for internal WHS reviews.

#### **4.12 DOCUMENTATION AND RECORDS**

Maintain (as part of the quality records in accordance with RMS D&C Q6 Clause 4.2.4) legible WHS records to demonstrate compliance with your WHS system. All records must be maintained for at least five years or as specified required by the WHS legislation whichever is greater. Health monitoring records must be maintained for 30 years from the date from which record was made.

Documents and records must be readily accessible and allow immediate inspection and copying by RMS Representative of these records.

### **5 WHS REPORTING**

Provide information to RMS Representative on a monthly basis in conformity with the Contractor WHS Report, as contained at Annexure G22/L. When requested by RMS Representative, provide reports on any safety inspections, audits or assessments undertaken during the course of the deed.

Provide information to RMS Representative within 24 hours or as soon as possible of any WorkCover Notices or WorkCover site visits.

## **6 AUDITS OF CONTRACTOR PERFORMANCE**

Allow RMS Representative to conduct an audit at any time on all aspects of the Corporate WHS system applicable to the project and Project WHS Management Plan. The audit will be performed in accordance with the NSW Government Guidelines for Auditing Project WHS Management Plans and RMS Representative audit guidelines. WorkCover may also conduct audits at any time.

Surveillance and process audits may also be conducted by RMS Representative at any time.

Make available at the site suitable facilities to accommodate an audit teams.

You must:

- (a) make available all relevant records, including those of subcontractors and suppliers for the purposes of audit and surveillance,
- (b) provide all reasonable assistance to the audit team nominated by RMS Representative during the audit process,
- (c) provide information to RMS Representative in accordance with the requirements of Clauses 4 and 5 of this Specification,
- (d) follow internal review procedures provided for in your WHS Management System.

## **7 NONCOMPLIANCE**

If, during the performance of the Works Under the deed, RMS Representative informs you that it is the opinion of RMS Representative that you:

- (a) are not conducting the work in compliance with your WHS Management System, Site-specific Safety Management Plan, relevant legislation or work health and safety procedures provided by RMS Representative from time to time; or
- (b) have allowed a risk to the health and safety of your workers, members of the public, RMS workers, or its contractors' and subcontractors' employees, plant, equipment or materials,

then you must identify, isolate and correct that breach of or risk to health and safety and notify RMS Representative that the issue has been resolved. RMS Representative reserves right to ask for relevant documents and records before closing the issue.

**ANNEXURE G22/A – PROJECT SPECIFIC WORK HEALTH AND SAFETY ISSUES**

*(Insert any specific requirements identified in the RMS Project WHS Plan)*

**ANNEXURE G22/B – (NOT USED)**

## **ANNEXURE G22/C – SCHEDULES OF HOLD POINTS AND IDENTIFIED RECORDS**

### **C1 SCHEDULE OF HOLD POINTS**

<b>Clause</b>	<b>Description</b>
3.2	Submission of the Project WHS Management Plan.
3.2	Submission of the project WHS documentation not submitted under initial HOLD POINT.
4.9.3	Verification of Corrective Action.

### **C2 SCHEDULE OF IDENTIFIED RECORDS**

The records listed below are Identified Records for the purposes of RMS D&C Q6 Annexure Q/E.

<b>Clause</b>	<b>Description of the Identified Record</b>
3.2	Project WHS Management Plan and Safe Work Method Statements
4.6.1	Risk Assessment and Risk Control Plans
4.7	Health and Safety Induction Training Records
4.9.3	Verification of Corrective Action

## ANNEXURE G22/D – PROJECT WHS MANAGEMENT PLAN AND SAFE WORK METHOD STATEMENTS

### Part 1: Project WHS Management Plan

A Project WHS Management Plan must address the following 12 elements:

1. Management Responsibility and Site Specific Roles and Responsibilities
2. Communication and Consultation
3. Service Providers and Subcontractors
4. Purchasing
5. Design
6. Risk Management and Site Safety Rules
7. Training
8. Inspection, Testing and Servicing
9. Incident Management and Corrective Action
10. Handling, Storage, Packaging and Delivery
11. Internal Reviews or Audits
12. Documentation and Records Management

As a guide to the requirements of each of these elements, copies of the RMS Project WHS Management Plan assessment checklist can be obtained at the following internet address:

<http://www.rta.nsw.gov.au/doingbusinesswithus/tenderscontracts/contractorhealthsafetyinformation.html>

### Part 2: Safe Work Method Statements

Safe Work Method Statements can be on the Contractor's own format but must comply with the relevant legislative requirement. A guide can be obtained from RMS website

<http://home.rta.nsw.gov.au/org/directoratesandbranches/eserv/ohs/risk/swms/index.html>

All Safe Work Method Statements must however:

- (a) show the company's letterhead and its registered office address
- (b) be signed and dated by a senior member of the management of the company; and
- (c) prepared for all work activities assessed as having high safety risks and/or those relevant high-risk construction activities listed in Part 6.3 Division 2 of the WHS Regulation.

Safe Work Method Statements must include:

- (i) a description of the work to be undertaken;
- (ii) the foreseeable hazards associated with that work;
- (iii) the actual step by step sequence involved in doing the work;
- (iv) what will be done to control the hazards;
- (v) all precautions to be taken to protect health and safety;
- (vi) all health and safety instructions to be given to employees involved with the work;

- (vii) the names and qualifications of those who will supervise the work;
- (viii) the names and qualifications of those who will inspect and approve work areas, work methods, protective measures, plant, equipment and power tools;
- (ix) description of the training that is provided to people involved with the work;
- (x) the names and qualifications of those responsible for training workers in the requirements of Safe Work Method Statement;
- (xi) the names of those who will be or have been trained in the work activity described in the Safe Work Method Statement;
- (xii) identification of health or safety related codes applicable to the work, and where these are kept;
- (xiii) identification of the plant and equipment that will most likely be used on site, e.g ladders, scaffolds, grinders, electrical leads;
- (xiv) details of the inspection and maintenance checks that will be or have been carried out on the equipment listed.

**ANNEXURE G22/E – SAMPLE FORM – DESIGN SAFETY REPORT**

<b>Designers Safety Report</b>
<b>Designer(s):</b>
<b>PCBU who commissioned design (Client):</b>
<b>Structure that is to be constructed:</b>

<b>List of unusual or atypical design features:</b>
---

<b>List of hazardous material(s) or hazardous structural features</b>	<b>What are the hazards and risks to persons who carry out construction work?</b>	<b>Designers assessment of the risk of illness or injury to persons who carry out construction work</b>	<b>Action taken by designer to control risks</b>
<b>Provided by:</b>	<b>Signature:</b>	<b>Date:</b>	
<b>Received by:</b>	<b>Signature:</b>	<b>Date:</b>	

ANNEXURE G22/F – RISK ASSESSMENT FORM

WHS RISK ASSESSMENT RECKONER  
(to determine risk ranking)

Likelihood: How Likely Is It To Happen And How Often?  Consequences: How Bad Is It Likely To Be?	Very Likely: Could happen at any time <b>VL</b>	Likely: Could happen some time <b>L</b>	Unlikely: Could happen, but rare <b>U</b>	Very Unlikely: Could happen, but probably never will <b>VU</b>
<b>Extreme:</b> Kill or cause permanent disability or ill health <b>K</b>	1	1	2	3
<b>Major:</b> Long term illness or serious injury <b>S</b>	1	2	3	4
<b>Moderate:</b> Medical attention and several days off work <b>M</b>	2	3	4	5
<b>Minor:</b> First aid needed <b>F</b>	3	4	5	6



**D&C G22**

**Work Health and Safety (Construction Works)**

<b>Project Deed No:</b>	
<b>Contractor:</b>	
<b>Contractor's Representative:</b>	
<b>Telephone:</b>	<b>Fax:</b>
<b>Signature:</b>	<b>Date:</b>

<b>Project Deed Title:</b>	
<b>RMS Representative:</b>	
<b>Telephone:</b>	<b>Fax:</b>
<b>Signature:</b>	<b>Date:</b>

Specific Task/Activity	Hazards	Likelihood	Consequence	Risk Ranking	Control Measures

**Work Health And Safety (Construction Works)**

**D&C G22**

Specific Task/Activity	Hazards	Likelihood	Consequence	Risk Ranking	Control Measures

## ANNEXURE G22/G – HAZARD IDENTIFICATION AND RISK CONTROL TABLE

The following table provides examples of control measures for a range of generic hazards. These examples are provided as a guide only and important site specific factors must also be considered. Note also that this table of examples does not include all possible hazards.

Hazard	Possible Cause	Control Measure
1. Traffic Hazards	1.1 Trucks entering, exiting a work site  1.2 Working in close proximity to roads	Use of traffic signalmen Installation of temporary traffic signals Use of Safety Signs Speed restriction signs displayed and enforced Use of witches hats or temporary barriers to cordon off sections of road Closure of road Use of Safety Signs Speed restriction signs displayed and enforced
2. Manual Handling	2.1 Use of heavy hand held tools, e.g. grass slasher 2.2 Handling of heavy objects	Use of lifting aids Imposed restrictions on certain activities Requirements for two person lifts Training of employees Use of support harness Limits on duration of use Provide mechanical aids Redesign object or task
3. Contact with Heat	3.1 Hot Materials  3.2 Fire in the Workplace  3.3 Exposure to sun	Provide appropriate protective clothing and training  Keep workplace clear of waste materials Issue of hot work permit Remove flammable materials or store correctly Provide adequate fire fighting equipment Employee fire fighting training Eliminate ignition sources from flammable atmospheres Provide protective clothing and sun screen Reduce exposure time
4. Contact with Electricity	4.1 Faulty electric leads and tools 4.2 No earth leakage detectors 4.3 Electric leads on ground 4.4 Electrical leads in damp areas 4.5 Electric leads tied to metal rails 4.6 Plant not isolated 4.7 Contact with underground or overhead cables	Tools and leads inspected and tagged  Residual current devices in all circuits Residual current devices tested regularly Electrical leads kept elevated and clear of work areas All electric leads kept dry All electric leads are kept insulated Ensure permit to work system followed Lock-out and equipment tag procedure Location of services to be established Overhead cables to be protected Services to be isolated when working in proximity Establish safe clearance distances
5. Exposure to Noise	5.1 Plant and equipment not silenced	Fit noise suppression to noisy plant and equipment

Hazard	Possible Cause	Control Measure
	5.2 Not wearing appropriate protection	All personnel to wear appropriate PPE (hearing protectors)
	5.3 Excessive exposure time to noisy areas	Regulate employee exposure to noise
6. Contact with High Pressure	6.1 Burst air lines	Air hoses in good condition and regularly inspected
	6.2 Hoses becoming uncoupled	All hose couplings fitted with pins or chains
	6.3 Using compressed air to clean clothing	Prohibit and instruct employees on dangers
	6.4 Improper handling of gas cylinders	Cylinders stored upright and secured
	6.5 Defective pressure gauges	All pressure gauges inspected regularly for defects
7. Contact with Chemicals	7.1 Incorrect handling procedures	All employees trained in MSDS requirements
	7.2 Lack of information	Review Material Safety Data Sheet and assess risks
	7.3 Not wearing appropriate PPE	All personnel provided with appropriate PPE
	7.4 Incorrect storage	Hazardous substances stored and labelled correctly
	7.5 Elevated exposure levels	Provide mechanical ventilation All personnel provided with appropriate PPE
8. Contact with Radiation	8.1 Exposure to arc welding	Welding operations shielded
	8.2 Not wearing appropriate PPE	All personnel wear appropriate PPE
	8.3 Exposure during radiography operations	Correct procedures developed and followed
	8.4 Exposure to lasers	Regular equipment check Follow documented safe work procedure for laser
	8.5 Exposure to sun	Provide protective clothing and sunscreen
9. Struck Against Object	9.1 Protruding objects in access routes	Protruding objects are removed or marked Provide appropriate PPE (hard hat, safety boots)
	9.2 Not wearing appropriate PPE	Provide appropriate PPE & training
	9.3 Personnel running at work	Personnel exercise restraint and walk
10. Struck By Object	10.1 Objects falling from work platforms	All work platforms fitted with toe-boards Fence off areas below to prevent access Materials stacked securely All personnel wear appropriate PPE (hard hats) Secure loose objects to structure
	10.2 Debris from grinding operations	Personnel wear appropriate PPE Shield grinding operations
	10.3 Wind blown particles	All personnel wear appropriate PPE
	10.4 Loads slung from cranes	Loads not slung over personnel Taglines are used to prevent loads swinging Loads slung correctly
11. Fall from Height	11.1 No handrails	All work platforms have secure handrails
	11.2 Working outside handrails	Persons wear full fall arrest type harness
	11.3 Floor penetrations not covered	All floor penetrations covered or barricaded
	11.4 Ladders not secured	All ladders secured to prevent movement Ladders to extend at least 1m above landings
	11.5 Unsafe area	Tag and fence to prevent access
12. Slips and Falls	12.1 Access routes obstructed by materials	All access routes kept clear of materials and debris
	12.2 Leads and hoses across access routes	All leads kept clear of ground or covered

Hazard	Possible Cause	Control Measure
	12.3 Slippery surfaces 12.4 Safety footwear not appropriate 12.5 Poor visibility	All surfaces used for access kept dry and in good condition Personnel wear appropriate safety footwear Provide adequate lighting
13. Caught Between Objects	13.1 Operating plant  13.2 Moving plant  13.3 Moving loads 13.4 Loads tipping or swinging 13.5 Materials being positioned	Guarding of rotating plant and hand tools Safe work procedures to be followed Provide roll over protective structure (ROPS) Pre-start daily safety inspection Personnel kept clear when operating plant Fit reverse alarms to plant and check operation All personnel kept clear during crane operations Load slings properly secured Safe Work Procedures for moving heavy loads
14. Overstress	14.1 SWL exceeded during lifting operations	Compliance with SWL and radius charts on cranes All lifting gear checked regularly
	14.2 Sprains and strains	All personnel trained in manual handling techniques
15. Ergonomic Hazards	15.1 Poor work posture  15.2 Use of excessive force  15.3 Repetitive movements	Work station to conform with ergonomic standards Seating to conform with ergonomic standards Training of employees Provide adequate task lighting Provide mechanical aids Modify workplace design Modify task requirements Job rotation
16. Asbestos Hazards	16.1 Accidental disturbance or contact	Asbestos materials identified and labelled Asbestos materials removed from workplace Safe work procedures developed
17. Biological Hazards	17.1 Needlestick injury  17.2 Potential exposure to HIV, hepatitis 17.3 Potential exposure to Legionella bacteria	Provide appropriate waste disposal containers Provide employees with PPE Develop safe work procedures and train staff Develop safe work procedures and train staff Immunisation program Provide employees with PPE Implement microbial control procedures
18. Excavation/ Trenching/ Tunnelling	18.1 Collapse of earth/rock  18.2 Fall into excavation 18.3 Asphyxiation 18.4 Inadequate access to excavation	Trench shoring to be provided in accordance with Code of Practice Tunnel shoring to be provided in accordance with latest approved Design Documentation drawings Shoring to be inspected regularly Dedicated Construction Sequence indicating "unsupported face distance" or "maximum cut out distance" between previously installed support and the face to be provided prior to the relevant tunnelling work Self support or random bolting for any length permitted only with written approval from the designer with written authorisation by a competent engineering geologist or geotechnical engineer following a site inspection Provide barricades around excavation Provide exhaust ventilation and test atmosphere Provide safe access by steps or ladders

Hazard	Possible Cause	Control Measure
19. Plant Overturn	19.1 Crane overturn 19.2 Mobile plant overturn	Cranes to be set up on solid ground and away from edge of excavation Plant to be fitted with roll over cage protection Safe work procedures developed

## ANNEXURE G22/H – MINIMUM REQUIREMENTS FOR A RISK ASSESSMENT AND CONTROL PLAN

### H CHECKLIST OF ISSUES TO BE ADDRESSED FOR HIGH RISK ACTIVITIES

#### H1 MANUAL HANDLING (TASK)

**Definition:**

“Manual Handling” or “Manual Task” is defined as any activity requiring the use of force or exertion by a person to lift, lower, push, pull, carry or otherwise move, hold or restrain any animate or inanimate object.

**Note:** “N.A.” means “Not Applicable”, “N.C.” means “Not Checked”

Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
1	Are manual handling tasks identified on a Workplace Hazard Register?	
2	Are there records of identification, assessment and control of manual handling hazards in the workplace?	
3	Are there records of assessments undertaken of potential for injury arising from manual handling tasks, including potential injury from new work methods and equipment?	
4	Do assessments involve: <ul style="list-style-type: none"> <li>• analysis of workplace injury records?</li> <li>• consultation with employees?</li> <li>• direct observation or inspection of the task or work area?</li> <li>• prioritisation of risks by risk rating/ranking?</li> </ul>	
5	Do the records make provision for assessment of known risk factors, including those listed in the National Code of Practice for Manual Handling (2005) and Chapter 4 of the WHS Regulation considered in the assessment of manual handling tasks? (Refer RMS WHS Policy 2.16 “Manual Handling”, Appendices 1 & 2) These risk factors include: posture, forces exerted by the worker and on the worker, speed of movement of the worker, vibration, duration & frequency.	
6	Is there evidence of manual handling tasks being redesigned to eliminate or control the risk factors?	
7	Is there evidence of employees being trained in the management of manual handling risk, manual handling techniques, and retrained when new work methods or equipment are introduced into the workplace?	
8	Where risk factors are identified and redesign is not practical, are the following provided: <ul style="list-style-type: none"> <li>• mechanical aids, and/or</li> <li>• personal protective equipment such as anti-vibration gloves, and/or</li> <li>• arrangements for team lifting?</li> </ul>	
9	Is there a Manual Handling Coordinator and/or team appointed to review and resolve manual handling risk issues? (Refer RMS WHS Policy 2.16.)	
10	Is evidence of a program in place to regularly review and monitor the effectiveness of manual handling risk controls?	
	<b>Corrective Actions</b>	<b>Close Out</b>

## H2A USE, INSTALLATION, INSPECTION AND/OR REPAIR OF PLANT AND EQUIPMENT

Note: "N.A." means "Not Applicable", "N.C." means "Not Checked"

Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
1	Have foreseeable hazards from the operation of plant/equipment been assessed, including the following: <ul style="list-style-type: none"> <li>• contact or entanglement with the machinery or materials?</li> <li>• being trapped between the machine and any material or fixed structures?</li> <li>• being struck by ejected material from the machinery?</li> <li>• noise and vibration from the machinery?</li> <li>• release of potential energy?</li> </ul>	
2	Have the design limitations of the machine been assessed, with regard to the intended use of the machine?	
3	Has any history of unsafe incidents or adverse health effects involving the plant/equipment been investigated and control responses applied?	
4	Have the consequences of reasonably foreseeable misuse or malfunction been assessed?	
5	Has a schedule of inspection, maintenance, repair and cleaning been developed for all plant/equipment?	
6	Are records kept of inspection, maintenance, repair and cleaning of plant/equipment?	
7	Were risk assessments carried out on any modification to plant/equipment and the results of the risk assessment taken into account in the final modification?	
8	Have all operators of plant/equipment: <ul style="list-style-type: none"> <li>• received the appropriate training,</li> <li>• hold certificates of operation where required, and</li> <li>• demonstrated their competence to operate the plant/equipment to the satisfaction of the contractor?</li> </ul>	
9	Are records kept to show that all operators have received appropriate training and instruction?	
	<b>Corrective Actions</b>	<b>Close Out</b>



## H2B CRANES/PILING RIGS

Note: "N.A." means "Not Applicable", "N.C." means "Not Checked"

Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
1	Does the unit and its accessories/attachments comply with Annexure G22/J – Truck and Plant Requirements?	
2	Is the unit and its attachments/accessories design compliant and covered in accordance with the AS 2550 and AS 1418?	
3	Does the item require NSW WorkCover design and or item registration in accordance with Appendix A in WorkCover publication "Guidance For The Provisions Of Cranes, Hoists And Winches Under WHS Legislation In NSW"?	
4	Is the item currently item registered with WorkCover?	
5	Does the item have a current CraneSafe registration certificate?	
6	Has a risk assessment been conducted on any attachments or accessories that have or can be fitted to the unit that may change the purpose for which the unit was designed or increased or added any risks and/or hazards?	
7	Has and will the unit be submitted to arduous working conditions, and if so, has and will the maintenance and inspection schedules reflect the necessary requirements?	
8	Has and will the item receive/d servicing and inspections, as a minimum, to the requirements of AS 2550.1, such as: <ul style="list-style-type: none"> <li>• pre-operational inspection,</li> <li>• routine inspection and maintenance,</li> <li>• periodic inspections,</li> <li>• major inspection to assess a crane for continued safe operation and assessment for changed operation?</li> </ul>	
9	Are historic, or at least the previous 12 months, service or maintenance records, and the logbook/s from the unit and its accessories and attachments available for inspection?	
10	If the unit or any mechanical part of it is greater than ten years old or any structural part is greater than 25 years old or any part of it has exceeded its design life, has a major inspection to AS 2550.1 been completed to assess the suitability for continued safe service of the unit or part?	
11	Were repairs or modifications that had been carried out done to the AS 2550 and AS 1418?	
12	If repairs or modifications are to be carried out they will be done to the AS 2550 and AS 1418?	
13	Is there a daily inspection log book kept in the unit at all times?	
14	Are load cells, load moment indicators and limit switches e.g. over wind or anti-two-block devices fitted to the unit?	
15	Have these load cells, load moment indicators and limit switches been inspected and tested within the last 12 months?	
16	Have winch ropes been correctly anchored to the drums?	
17	Has all lifting equipment, attachments and accessories including but not limited to slings, hooks, eyes, beams, shackles, blocks and chains been inspected, tested and passed for use according to a certified and established procedure?	
18	Are the cranes rating and load capacity charts approved and applicable to the unit, its attachments, its accessories, its use and site conditions?	
19	If the crane has free fall capability, is there a physical locking system in place that disables the free fall capability?	
20	Has a weekly test procedure been prepared and established for the free fall physical locking system?	
21	Have controls been put in place for freefall work?	
22	Are erection, commissioning and dismantling instructions compliant with AS 2550.1 for cranes in place?	
23	Has a procedure been established for the completing of the daily risk assessment of the crane set up and foundations?	
24	Has a risk assessment been prepared for the operations the crane will perform?	

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Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
25	Has a movement plan and risk assessment been prepared for the crane considering such things as loadings, side loadings, conditions, terrain and direction not excluding other matters to ensure safety of the crane, personnel and equipment while walking, travelling or moving on site?	
26	Has an accident recovery procedure for risk assessments categorised as high risk been established and put in place?	
27	Has training for the accident recovery procedure been undertaken and successfully completed?	
28	Where the crane is vessel mounted, does it fully comply with AS 2550.1 section 6.29?	
29	Is there documented evidence available for all of the above?	
30	Where piling is to be undertaken, has section 6.5 of AS 2550.5 been totally addressed?	
	<b>Corrective Actions</b>	<b>Close Out</b>

## H3 PREVENTING FALLS

Note: "N.A." means "Not Applicable", "N.C." means "Not Checked"

Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
1	Has an assessment been undertaken to determine whether there is a risk of persons falling 2 metres or more?	
2	Are SWMS developed for activities where workers are exposed to a fall greater than 2 metres and are relevant persons trained in them?	
3	Do persons performing work at heights have the appropriate training, competence and experience prior to the commencement of work?	
4	Is a system in place to ensure that equipment used for accessing elevated works are regularly checked and maintained in a safe condition?	
5	Has an assessment been undertaken to determine risks to people below the immediate work area and have appropriate control measures been implemented?	
6	Is a rescue procedure in place for those working at height and are relevant persons trained in the procedure?	
7	Are persons required to use a fall arrest system(s) instructed in their fitting and safe use, and are they competent in the use, care, storage and inspection of the fall arrest system(s)?	
8	Wherever possible, do anchorage points bear a loading of 15kN (1,529kg) for a single person anchorage?	
<b>Scaffold</b>		
9	Is scaffold where a person or object could fall 4 metres or more, erected by a person holding the basic level scaffolding certificate of competency, or higher?	
10	Is scaffold where a person or object cannot fall more than 4 metres, erected to manufacturer's specifications?	
11	Is there a fenced, secure work platform installed where persons are at risk of falling over 2 metres or, if this is not practicable, is there a fall arrest/restraint system installed? (Handrail: 900 mm to 1100 mm, mid-rail: 400 mm to 600 mm.)	
12	Does the scaffold have a safe means of access/egress?	
13	Is incomplete scaffold signposted as "NOT FOR USE"?	
14	Are handover certificates issued for scaffolds where a person or object could fall 4 metres or more?	
15	Is there a local identifying number issued and a register maintained (for maintenance recording purposes) for completed scaffold that are 4 metres or more?	
16	Is there a system for regular, documented inspections of scaffold where persons can fall greater than 4m: <ul style="list-style-type: none"> <li>• before its first use, and</li> <li>• as soon as practicable, and before its next use, after an occurrence that might reasonably be expected to affect the stability or adequacy of the scaffold or its supporting structure, such as a severe storm or earthquake, and</li> <li>• before its use following repairs, and</li> <li>• at intervals not exceeding 30 days?</li> </ul>	
<b>Batters</b>		
17	Has a risk assessment been completed for batters with an incline/decline exceeding 15° (1:3.7) where workers are within 2 metres of the edge of the batter that could fall greater than 2 m?	
<b>Ladders</b>		
18	Are all ladders rated for industrial use?	
19	Is the ladder marked with the relevant information? (e.g. industrial/commercial use, load rating, name of manufacturer, working length of the ladder, "DO NOT USE WHERE ELECTRICAL HAZARDS EXIST" sign, "USE IN THE FULLY OPENED POSITION ONLY", a warning against standing on those rungs which will represent an unsafe working position (step adder – no higher than second top tread; single or extension ladder – no higher than 3 <sup>rd</sup> top rung)	

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Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
20	Are portable ladders used as a short-term solution for access/egress where no other access/regress options are practicable?	
21	Do portable ladders have a local identifying number legibly painted on both stiles?	
22	Does the user of a non-self supporting ladder need to access above the second top rung?	
23	Is a local register of ladders maintained on site?	
24	Is the top of the ladder secured against any movement and the base of the ladder secured against sliding away from the supporting structure?	
25	Are documented inspections of ladders conducted every 6 months?	
26	Are extension ladders positioned at a pitch angle of no less than 1:4 and no greater than 1:6?	
27	Has fall protection been provided where a permanent ladder is used for access and a free fall in excess of 2 metres is possible?	
28	Do ladders extend 1 metre above the landing height (900 mm for ladders used on scaffolds)?	
29	Are users of ladders following the "three points of contact" rule whenever possible?	
	<b>Corrective Actions</b>	<b>Close Out</b>

**H4 WORKING IN CONFINED SPACES**

Note: "N.A." means "Not Applicable", "N.C." means "Not Checked"

Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
1	Has a risk assessment and SWMS to include risks associated with access/egress, engulfment and contaminated air, developed in consultation with workers been completed for the following stages of the work: <ul style="list-style-type: none"> <li>• before commencement;</li> <li>• during work activity, and</li> <li>• in an emergency?</li> </ul>	
2	Have all hazardous activities e.g. hot works, work with hazardous substances, operating plant, in or near the confined space, been identified, assessed and controlled?	
3	Has air monitoring been conducted and recorded (as required)?	
4	Has all monitoring equipment been tested and calibrated as required by manufacturers' requirements?	
5	Have all persons required to enter the confined space completed nationally recognised training for confined space entry?	
6	Have confined spaces been signposted?	
7	Where possible is a physical barrier erected around the confined space to prevent unauthorised entry of persons?	
8	Are arrangements/provisions for rescue, first aid and resuscitation in place prior to entry into the confined space?	
9	Is an entry permit completed, communicated and signed off by the stand by person and all those entering the site?	
10	Is there a procedure to ensure communication between the stand by person and those in the confined space at all times?	
11	Has the soundness and security of the overall structure and the need for illumination and visibility been assessed?	
12	Has the extent to which cleaning will be required in the confined space been assessed?	
13	Have all persons entering the confined space received a site induction that covers at least: <ul style="list-style-type: none"> <li>• Emergency exit/entrance procedures?</li> <li>• First aid arrangements?</li> <li>• Lockout procedures?</li> <li>• Safety equipment use?</li> <li>• Rescue drills?</li> <li>• Fire protection?</li> <li>• Communications?</li> <li>• Site hazards?</li> </ul>	
	<b>Corrective Actions</b>	<b>Close Out</b>

**H5 VEHICLE MOVEMENT ON SITE**

Note: "N.A." means "Not Applicable", "N.C." means "Not Checked"

Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
1	Has the severity of the hazard been considered?	
2	Has the expected duration of the job been determined?	
3	Has the volume and type of traffic been considered, to determine the amount of road and/or footpath space which must remain open and, where applicable, the times of day when greater amounts of space are required, including the following types of traffic: <ul style="list-style-type: none"> <li>• Pedestrians – including disabled persons;</li> <li>• Bicycles;</li> <li>• School children;</li> <li>• Emergency vehicles;</li> <li>• Buses and light rail, including stops and terminals;</li> <li>• Over-dimensional vehicles.</li> </ul>	
4	Has the type of traffic routing required been assessed?	
5	Has the type of traffic control required been determined?	
6	Will traffic controllers be required for intermediary arteries?	
7	Will police or RMS be required to institute diversions?	
8	Is there an impact on any main arterial roads?	
9	Is the site in proximity to traffic lights?	
10	Is special lighting is required?	
11	Has the positioning of cones and early warning signs been considered?	
12	Has training been provided to employees working on roads, including: <ul style="list-style-type: none"> <li>• wearing the appropriate personal protective and safety equipment?</li> <li>• being properly located?</li> <li>• communicating effectively?</li> <li>• assessing changes in traffic patterns?</li> <li>• knowing what to do in an emergency?</li> </ul>	
13	Is there adequate maintenance of records including: <ul style="list-style-type: none"> <li>• installation, alteration and removal of all regulatory signs and devices, including speed restriction signs, and</li> <li>• hours of operation and the surface conditions?</li> </ul>	
	<b>Corrective Actions</b>	<b>Close Out</b>

**H6 HAZARDOUS SUBSTANCES AND DANGEROUS GOODS**

The procedures must incorporate the documentation and classification of dangerous goods and hazardous substances, general safe storage and handling requirements, material safety data sheets and purchasing requirements in accordance with Chapter 7 of the WHS Regulation.

**Note:** "N.A." means "Not Applicable", "N.C." means "Not Checked"

Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
1	Have all hazardous substances and dangerous goods on site been identified and included in a hazardous substances register?	
2	Are Material Safety Data Sheets (MSDS) available on site, for all hazardous substances in use?	
3	Have risk assessments for all hazardous substances been completed and recorded in the hazardous substances register?	
4	Have the risks associated with the use of hazardous substance communicated to those exposed to the substance?	
5	Have "safe systems of work" procedures been developed and implemented for identified hazardous substances or dangerous goods?	
6	Is there a procedure to monitor the effectiveness of these control measures?	
7	Is there a written procedure for the introduction of new substances to the workplace?	
8	Is there a procedure to ensure the least hazardous substances/products suitable for the work to be done is purchased?	
9	Have all staff who may use or be exposed to hazardous substances been trained in the nature of the hazards and the means of controlling exposure?	
10	Are all hazardous substances appropriately stored? (e.g. banded/well ventilated area/incompatible substances segregated/not exposed to the weather.)	
11	Is health surveillance required for employees that may be at risk of health effects arising from exposure to hazardous substances at work? If yes, have: <ul style="list-style-type: none"> <li>• these been scheduled and a competent person appointed to do checks under the supervision of authorised medical staff, and</li> <li>• records been maintained?</li> </ul>	
12	Are all hazardous substances correctly labelled with the name of the substance and the basic health and safety information about the substance?	
13	Have emergency procedures to prevent fire or explosion and control risks due to escape or spillage of hazardous substances been established and documented?	
14	Is airborne monitoring necessary in the workplace? If yes, has this been scheduled, are records maintained, and has a competent person been appointed to do this task?	
15	Where manifest thresholds are exceeded, has WorkCover been notified?	
16	Has placards been provided where dangerous goods are stored or handled in bulk, or in packages above the placard quantity threshold?	
17	Is there a manifest where the quantity of dangerous goods stored or handled is above the manifest quantity threshold?	
18	Is a spill kit available in areas where hazardous substances are used/stored and are they are easily accessible?	
19	Do regular emergency drills take place? Are records available?	
20	Are hazardous substances disposed of appropriately?	
	<b>Corrective Actions</b>	<b>Close Out</b>

**H7 ELECTRICAL WORK**

Work involving use of electricity is potentially hazardous to the safety of the user and safe work operations. Procedures must provide guidance for the maintenance and safe operation of electrical equipment in accordance with the WHS Regulation and WorkCover Code of Practice "Electrical Practices for Construction Work".

Note: "N.A." means "Not Applicable", "N.C." means "Not Checked"

Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
1	Is an 'Electrical Register' identifying all electrical equipment and inspections conducted being maintained?	
2	Is a program in place for periodic inspecting and testing of electrical equipment by a suitably qualified person?	
3	Are all electrical installations and equipment inspected/tested and tagged in accordance with AS3760 and manufacturers recommendations?	
4	Is a program in place to evaluate compliance of equipment and subsequent action to be taken?	
5	Are all circuits including portable generators protected by an RCD?	
6	Are all flexible cords: <ul style="list-style-type: none"> <li>• 10 Amp,</li> <li>• have heavy duty sheaths, and</li> <li>• no longer than 32m?</li> </ul>	
7	Are all generators effectively earthed?	
	Are all electrical leads: <ul style="list-style-type: none"> <li>• kept off walkways, and</li> <li>• raised off the ground, away from water/corrosive substances/heat/friction or otherwise protected from damage?</li> </ul>	
8	Are all defective tools or cords tagged 'Out of Service'?	
9	Has an 'Electric Shock Response' protocol been documented, developed and communicated to those exposed to the risk?	
10	Are SWMS being used for all tasks involving interaction with electricity?	
11	Have effective control measures been implemented to eliminate or minimise exposure to electrical energy?	
12	Have workers and contractors who work with or in the vicinity of electrical equipment/installations, received training in the: <ul style="list-style-type: none"> <li>• nature of the hazards involved, and</li> <li>• methods of controlling exposure to the hazard?</li> </ul>	
13	Is adequate signage in place to warn of electrical hazards and/or to restrict access to the area?	
14	Are all switches on electrical equipment correctly identified?	
15	Is electrical work being undertaken in the presence of a safety observer who is competent to perform the particular task, and competent in electrical rescue and cardio-pulmonary resuscitation?	
16	Has the isolation point of the relevant electrical supply been clearly identified, and easily accessed and operated quickly?	
	<b>Corrective Actions</b>	<b>Close Out</b>



**H8A PRESTRESSING (GENERAL)**

Note: "N.A." means "Not Applicable", "N.C." means "Not Checked"

Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
1	Have the following inspections been completed by the stressing operator prior to commencement of stressing: <ul style="list-style-type: none"> <li>(i) Is the concrete around the anchorages in good condition?</li> <li>(ii) Are anchorage components clean and are the wedges free to move inside the taper?</li> <li>(iii) Are the grips in the jack clean, free from dirt and not exhibiting excessive wear?</li> <li>(iv) Does the jack carry a durable, self-adhesive or positively secured tag which clearly shows:               <ul style="list-style-type: none"> <li>- final stressing pressure,</li> <li>- diameter and grade of the strand for which the jack is to be used,</li> <li>- jack identification number,</li> <li>- corresponding gauge number, and</li> <li>- expiry date of calibration?</li> </ul> </li> <li>(v) Is there a copy of the current jack and calibration certificate with the jack and gauge on site at all times?</li> </ul>	
2	During initial stressing, have the following issues been considered: <ul style="list-style-type: none"> <li>(i) Is the stressing being carried out to the method and schedule determined by the design engineer?</li> <li>(ii) Is the stressing being carried out to the load requirements on the Design Documentation structural drawings?</li> <li>(iii) Is a competent person present at the non-jacking end of double live end tendons to check that anchorage blocks and wedges are correctly seated, and to advise the stressing operator and to warn other site personnel to keep clear?</li> </ul>	
3	Before final stressing is commenced, have the following been checked: <ul style="list-style-type: none"> <li>(i) Have adequately designed and constructed barriers been erected at the live ends of tendons being stressed?</li> <li>(ii) Has the stressing area been appropriately flagged and have warning signs been displayed?</li> <li>(iii) Has the operator checked that the area is clear and that there are no persons between the jack and the barricade or within 2 metres of any live end anchorage?</li> <li>(iv) Are there adequate clearances available for the jack to prevent possible skewing or lifting during stressing?</li> <li>(v) Do concrete compression tests indicate that transfer strength has been reached?</li> </ul>	
	<b>Corrective Actions</b>	<b>Close Out</b>

**H8B POST-TENSIONING**

Note: "N.A." means "Not Applicable", "N.C." means "Not Checked"

Item	Checklist	Yes/No (✓/✘) N.A. or N.C.
1	Have the following inspections been included by the stressing operator as part of their safe work method statement or procedure: (i) Inspection of the integrity of concrete around the anchorages? (ii) Inspection of anchorage components to ensure that they are clean and are the wedges free to move inside the barrel/taper? (iii) Inspection of the jack to ensure jaw is clean, free from dirt and not exhibiting excessive wear?	
2	Are suitable quantities and size of vibrators available to compact concrete around anti-burst steel?	
3	Is a suitable person available to monitor the concrete pour around ducts to ensure integrity maintained?	
4	Is anti-bursting steel installed in accordance with the Design Documentation drawings?	
5	Is provision of suitable protection at the ends of pour when running strand available and being used?	
6	Does the jack carry a durable, self-adhesive or positively secured tag which clearly shows: <ul style="list-style-type: none"> <li>• maximum stressing pressure,</li> <li>• the jack reference number and</li> <li>• calibration expiration date?</li> </ul>	
7	Is a copy of the current jack and gauge calibration certificate available on site?	
8	Are suitable arrangements in place to ensure damage to tendons/strand does not occur during pre-pour operations? (Note: Use of oxyacetylene cutter and welding should be limited.)	
9	Is a competent person available on site to supervise the installation of dead ends and couplers?	
10	Are strand coils installed in a frame designed by the contractor for the purpose of storing strand?	
11	If the coil storage frame is to be lifted, is certification that it is safe to do so available on site?	
12	Is the stressing being carried out to the method and schedule determined by the approved design?	
13	Is the stressing being carried out to the load and extension requirements on the Design Documentation structural drawings?	
14	Before final stressing commences, have the following been checked: (i) Have adequately designed and constructed barriers been erected at the live ends of tendons being stressed? (ii) Has the stressing area been appropriately flagged and have warning signs been displayed? (iii) Has the operator checked that the area is clear and that there are no unauthorised persons between the jack and the barricade or within 2 metres of any live end anchorage? (iv) Are there adequate clearances available for the jack to prevent possible skewing or lifting during stressing?	
15	Are records available to show that the transfer strength for specific concrete pours has been achieved?	
16	Is suitable protection offered to other trades during cutting of strand after stressing?	
17	Are suitable waste bins provided to maintain housekeeping at stressing location?	
	<b>Corrective Actions</b>	<b>Close Out</b>

**H9 BLASTING USING EXPLOSIVES**

Note: "N.A." means "Not Applicable", "N.C." means "Not Checked"

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Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
1	Has blasting been approved under the project environmental conditions of approval?	
2	Has a blast management plan been prepared, approved and available on site?	
3	Does the plan include a procedure to address misfires?	
4	Is there a procedure to manage traffic and minimise delays associated with blasting (e.g. TMP/TCPs)?	
5	Is there a requirement for the assessment of the weather prior to blasting and during loading?	
6	Is there a requirement to assess risk of fall adjacent to cut batter slopes pre/post blasting?	
7	Does the shotfirer have a current WorkCover blasting explosive user licence?	
8	Do all personnel handling explosives have a licence?	
9	Do the quantities of explosive/s being transported require a licence? Is a copy of the licence/s available on site?	
10	Has approval by WorkCover been granted for storage of explosives on site?	
11	Is a copy of the site security plan available?	
12	Has the contractor developed a loading sequence plan to address the safety of personnel and general public?	
13	Are all blasting consumables stored securely and are site plans in place to manage the security of boosters and detonators?	
14	Does the plan address the timing of priming holes?	
15	Has the contractor provided a method to isolate the blast area during loading/charging of holes?	
16	Has contractor provided a method to prevent contamination of holes post drilling?	
17	Are precautions taken to ensure that the safety fuses, lead wires, detonating cord or signal tube connected to the primer are not damaged during the placing of stemming material and subsequent tamping?	
	<b>Corrective Actions</b>	<b>Close Out</b>

**H10 WORK NEAR UNDERGROUND UTILITIES**

**Note:** "N.A." means "Not Applicable", "N.C." means "Not Checked"

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Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
1	Have "Dial Before You Dig" records showing the location of underground utilities been obtained no greater than 28 days prior to work commencing?	
2	Has a site survey been carried out to identify surface indicators of utilities (e.g. light posts, valve pits, pit covers)?	
3	Has all information concerning the location of utilities been provided to the responsible supervisor or contractor at the work site and communicated to relevant persons on site?	
4	Have suitable cable and pipe locating devices been used to confirm position of the utilities? (Remember that these devices cannot detect plastic pipes.)	
5	Are cable and pipe locating devices calibrated/serviced as per manufacturer's requirements?	
6	Are persons locating underground utilities trained in the operation of locating devices?	
7	Has the asset owner been notified where excavation is within the minimum distance stated in WorkCover Guide 2007 "Work Near Underground Assets" Table B?	
8	Have safe work method statements been developed for working near underground utilities and are employees trained in following these work methods and the hazards facing them if these systems are not employed?	
9	Have managers/supervisors been trained in the hazards and overarching requirements regarding inadvertent contact with underground utilities?	
10	Have all those undertaking work near underground utilities been instructed, trained and assessed as competent for the task (e.g. plan/map reading, utility specific statutory training, risk assessment methodology)?	
11	Has the position of underground utilities been marked on the surface?	
12	Has the location of utilities been plotted on the work area plan?	
13	Are relevant authorities notified of any inconsistencies between the information they provided and the actual location of the utilities?	
14	If utilities cannot be located according to plans provided by the relevant authority, is the authority's assistance sought at the site to locate the utility?	
	<b>Vertical Boring</b>	
15	Have all underground utilities located within 500 mm of the vertical boring been positively identified through potholing?	
	<b>Excavation</b>	
16	Is all excavation work (i.e. mechanical excavation and excavation using non-powered hand tools) being undertaken in accordance with the minimum distances stated in WorkCover Guide "Work Near Underground Assets"?	
17	Have all underground utilities near machine excavation work been positively identified through potholing with non-conductive tools?	
18	Is a competent safety observer in place when excavating around underground utilities?	
19	Are all workers kept clear of the excavator bucket while digging work is conducted in the vicinity of utilities?	
	<b>Assets Around Poles</b>	
20	Has approval from the asset owner been obtained for excavations within 10 m of Single Wire Earth Return transformer poles?	
	<b>Corrective Actions</b>	<b>Close Out</b>

**H11 WORK NEAR OVERHEAD UTILITIES**

Procedures should provide guidance for the safe work around overhead powerlines in accordance with WorkCover Code of Practice 2006 "Work Near Overhead Powerlines".

**Note:** "N.A." means "Not Applicable", "N.C." means "Not Checked"

Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
1	Is there another way of undertaking the work that would eliminate the need to work within the "no go" zones?	
2	Has the network operator been consulted regarding the proposed work?	
3	Is it possible to have the supply authority de-energise the overhead lines while work is being carried out in the vicinity?	
4	Have staff involved in the work been trained in controlling risks from overhead utilities in the vicinity of work sites?	
5	Have safe work method statements been developed for working near overhead utilities and are staff trained in following these work methods?	
6	Have plans and other relevant information about the overhead utilities been obtained?	
7	Has the location of overhead utilities been plotted on the work area plan?	
8	Has all information concerning the location of utilities been given to the responsible supervisor or contractor at the work site?	
9	Has allowance been given to variations in the sag of the line at different times of the day?	
10	Has allowance been given to the sway of the lines, particularly if wind conditions change during the work period?	
11	Are relevant authorities notified of any inconsistencies between the information they provided and the actual locations of the utilities?	
12	Are the minimum working distances specified in the Code of Practice been complied with: 8 m, for > 330kV 6 m, for > 132kV but < 330kV 3 m, for <132kV	
13	If working within the approach distances, has: <ul style="list-style-type: none"> <li>• a spotter been designated to observe the operation of the plant,</li> <li>• the plant operator and the spotter completed "Crane and plant Electrical Safety" course?</li> </ul>	
14	Is the supply authority told when work in the vicinity of overhead utilities has been completed and is a record kept of notification?	
	<b>Corrective Actions</b>	<b>Close Out</b>

**H12 EXCAVATION****Definition:**

“Excavation” is defined to include the excavation or filling of trenches, ditches, shafts, drifts, rises, wells, tunnels and pier holes, open excavations (where the width is equal to or greater than the depth), work involving the use of caissons and cofferdams or any similar work.

Note: “N.A.” means “Not Applicable”, “N.C.” means “Not Checked”

Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
1	Have all excavation work been subject to a risk assessment before commencement, or whenever there is a change that may cause new hazards, with particular attention being paid to: <ul style="list-style-type: none"> <li>• possibility of the fall or dislodgement of earth/rock or other materials?</li> <li>• instability of the excavation or adjoining structure?</li> <li>• in rush of water (or any other substance, e.g. sewage)?</li> <li>• placement of excavated material?</li> <li>• instability due to person or plant working adjacent to the excavation?</li> </ul>	
2	Has a SWMS been developed and all excavation workers trained on its contents?	
3	Is an adequate system of safety (including benching, battering, shoring, or other forms of earth retention) being used to control the major hazards associated with excavations?	
4	If benched or battered, is the angle of repose less than 45°? (If the angle of repose is greater than 45°, written certification by a geotechnical engineer is required.)	
5	Have trench covers and shoring been approved by a structural engineer?	
6	Are excavations in or adjacent to roads adequately shored or supported to: <ul style="list-style-type: none"> <li>• ensure the stability of residual road slab after excavation is complete?</li> <li>• provide support for all pavements or road surfaces whilst the excavation is open?</li> <li>• control for instability due to adjacent or overhead traffic?</li> </ul>	
7	Have underground and overhead services been identified, marked, and located prior to excavation commencing?	
8	Has a competent person been appointed to supervise: <ul style="list-style-type: none"> <li>• excavations more than 1.5 metre deep?</li> <li>• work in tunnels?</li> <li>• on caissons and cofferdams?</li> <li>• compressed air work in an excavation?</li> </ul>	
9	Are all excavations been secured and barricaded to ensure the safety of persons on site and members of the public?	
10	Has safe access and egress been provided for in the excavation (including to and from caissons and cofferdams) throughout the duration of the works?	
11	Is there a procedure to ensure no person work alone in or around an excavation ranked as a high or medium risk at any time?	
12	If a stand by person has been provided, are they located outside the zone of influence?	
13	Have emergency procedures been developed and communicated to all persons working in or near the excavation works before work commences?	
14	Do the emergency procedures address all foreseeable major hazards, in particular: <ul style="list-style-type: none"> <li>• collapse of excavation,</li> <li>• unplanned contact with underground or overhead services,</li> <li>• inrush of water or other substance into excavation,</li> <li>• exposure to hazardous substances?</li> </ul>	
15	Has a schedule of inspections by a competent person based on the outcomes of the risk assessment been developed?	
16	Has a competent person completed regular inspections of the excavation as required by inspection schedule?	

Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
17	Is the zone of influence free of: <ul style="list-style-type: none"><li>• excavated material?</li><li>• operating plant?</li></ul>	
18	Have foreseeable hazards arising from the operation of plant/equipment in or near the excavation been assessed, including the following: <ul style="list-style-type: none"><li>• contact with overhead utilities?</li><li>• effect of mobile plant on the stability of the excavation?</li><li>• contact with persons or other machinery?</li><li>• ejection of material?</li><li>• possibility of overturning?</li></ul>	
19	Has the possibility of the excavation becoming a confined space been considered and controlled?	
	<b>Corrective Actions</b>	<b>Close Out</b>

**H13 LEAD WORK**

Note: "N.A." means "Not Applicable", "N.C." means "Not Checked"

Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
1	Has WorkCover been notified of lead risk work at least 60 days before the work begins (unless a shorter notice time has been agreed upon by WorkCover)?	
2	Has a risk assessment and SWMS for lead exposure to personnel including workers and members of the public been completed?	
3	Are SWMS reviewed when there is evidence that: <ul style="list-style-type: none"> <li>• they are no longer valid, or older than 3 years?</li> <li>• a new lead source is identified?</li> <li>• overexposure to lead has occurred?</li> <li>• new equipment or new work practices?</li> <li>• a significant change is proposed at the place of work, or work practices or procedures?</li> </ul>	
4	Have the most appropriate work methods to minimise exposure to lead been implemented, e.g. compressed air/gas or dry sweeping not used for cleaning, use of vacuum shrouded tools, no/minimal hot works?	
5	Are all personnel working with molten lead, lead fumes or lead dust trained in ways to control exposure to themselves, others and the environment?	
6	Does the lead training include: <ul style="list-style-type: none"> <li>• handling requirements?</li> <li>• ventilation and other control devices?</li> <li>• PPE, care, maintenance and use?</li> </ul>	
7	Are training records maintained and is refresher training provided every 2 years?	
8	Is biological monitoring of workers blood lead levels and ongoing health surveillance provided?	
9	Is an emergency response plan evident and is workers training in this plan?	
10	Has environmental monitoring completed to assess emission control systems and emission monitoring?	
11	Is a restricted lead process area well delineated/signed to keep out unauthorised persons and is contamination contained within this area?	
12	Is there a suitable decontamination unit and laundering procedure available for workers?	
13	Are hygiene requirements outlined and complied with?	
14	Are records of those removed from lead risk work kept for at least 5 years?	
	<b>Corrective Actions</b>	<b>Close Out</b>



**H14 ASBESTOS REMOVAL/DISTURBANCE**

Note: "N.A." means "Not Applicable", "N.C." means "Not Checked"

Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
1	Does the contractor have a WorkCover licence for: <ul style="list-style-type: none"> <li>• friable asbestos activities that will take longer than 1 hour work?</li> <li>• removal or disturbance of bonded asbestos within a 10 square metre limit?</li> </ul>	
2	Is there an Asbestos Management Plan?	
3	Has a risk assessment been completed by a technically competent person prior to commencing work with asbestos contaminated material (ACM)?	
4	Is asbestos waste removed by a competent person?	
5	Are there SWMS for activities involving ACM?	
6	Are responsibilities for the security and safety of the asbestos removal site and asbestos work area specified in the asbestos removal control plan?	
7	Has health surveillance for staff potentially exposed to asbestos been implemented as determined by a risk assessment, i.e. ongoing or periodic atmospheric monitoring?	
8	Is air monitoring completed by a competent person (usually a qualified occupational hygienist)?	
9	Have all persons exposed to ACM been trained in: <ul style="list-style-type: none"> <li>• Identification and signage of areas where ACM is known to exist?</li> <li>• Dealing with the hazards involved?</li> <li>• Systems of work and other control measures?</li> <li>• PPE use, care and maintenance?</li> <li>• Emergency procedures?</li> </ul>	
10	Is all ACM clearly labelled?	
11	Is there a satisfactory decontamination procedure for cleaning the site once the work is completed?	
12	Has a clearance been provided by a competent person prior to re-occupying the area?	
	<b>Corrective Actions</b>	<b>Close Out</b>

**H15 NOISE****Definition:**

The RMS is a signatory to the WorkCover NSW Construction Noise MOU. The RMS requires all organisations working on RMS controlled or funded works to adopt the principles set out within the MOU.

Note: "N.A." means "Not Applicable", "N.C." means "Not Checked"

Item	Checklist	Yes/No (✓/✗) N.A. or N.C.
1	Has an organisational noise management policy and procedures been developed and implemented?	
2	Has a noise management plan per site, including noise reduction strategies been developed and implemented?	
3	Have responsibilities and accountabilities been assigned for the implementation of the noise management plan at each site?	
4	Has a noise awareness and education program been undertaken at each site?	
5	Has plant (including owned, hired or leased) that has the potential for exceeding an 8-hour noise level equivalent of 85 dB(A), been assessed to determine noise emissions?	
6	Where plant is identified as exceeding these levels, have procedures implemented to protect workers?	
7	Are records such as site noise management plans, principal contractor's and sub contractor's noise assessments, assessments of plant with a noise level in excess of 85 dB(A) Leq, workplace monitoring results and noise awareness training maintained?	
8	Are noise management requirements included in all purchasing policies and procedures?	
9	Are noise management requirements included in all deed tender processes with subcontractors?	
10	Is hearing protection issued to and worn by workers?	
11	Is noisy plant and work areas appropriately labelled/signposted?	
	<b>Corrective Actions</b>	<b>Close Out</b>

**ANNEXURE G22/I – (NOT USED)**

## ANNEXURE G22/J – TRUCK AND PLANT REQUIREMENTS

### SCHEDULE J1 TRUCK REQUIREMENTS

All trucks must comply with the Work Health and Safety Act and Regulations, Commonwealth and State legislation, and relevant Australian Standards in addition to the requirements set out below.

#### J1.1 Registration

All trucks must meet the requirements for NSW registration and be fully registered for the duration of the hire.

The appropriate registration label must be affixed in a secure, visible location. All old labels must be removed.

#### J1.2 Safety standards

These standards have been adapted from the Work Health and Safety Act and Regulations, Commonwealth and State legislation, various Australian Standards and RMS requirements.

##### J1.2.1 Neutral start

Neutral start switches must operate on all trucks with automatic transmissions.

##### J1.2.2 Brakes

Service brakes, parking brakes and trailer brakes must be fully operational and free from any defects. Air systems must be free from leaks and contamination.

##### J1.2.3 Seat belts

Seat belts when fitted must be free of defects and worn at all times. Seat belts must not be removed where fitted as part of original manufacturer's equipment.

##### J1.2.4 Reverse alarm

All trucks must be fitted with a reverse alarm that is automatically activated when reverse gear is selected. Alarms which vary the output in response to changes in the surrounding noise level, i.e. self-adjusting type alarms (e.g. "Smart Alarm"), are preferred.

The alarm's noise level range must be 87 to 112 dB(A) at 1 metre distance from the alarm. Self-adjusting type alarms must be mounted with an unobstructed 'vision' to the rear of the truck. All alarms must be clearly audible above the noise level of the truck. Fixed output reverse alarms originally fitted by the truck manufacturer are acceptable.

Truck and trailer combinations must be fitted with a reverse alarm at the rear of the rear-most trailer where the trailer's ATM/GTM exceeds 4.5 tonnes and/or length exceeds 6 metres.

##### J1.2.5 Compulsory signs

Tipper trucks must have an Electrical Hazard Warning notice fitted clearly visible to the driver whilst the hoist is being operated. The Electrical Hazard Warning must display the minimum safe working distances.

#### **J1.2.6 Amber beacon**

Trucks must have at least one amber beacon, which is active, whenever the truck is operating on the job site. The beacon must be mounted as near as possible to the top of the truck, and be clearly visible in normal daylight up to a distance of 200 metres in all directions.

Amber beacons that are halogen rotating types (minimum 55 watts) are preferred. Strobe lights, which are minimum 8-joule double pulse, are also acceptable.

### **J1.3 Mechanical requirements**

#### **J1.3.1 Leaks**

The engine, transmission, driveline, hydraulics and fuel system must not have any leaks that allow oil or fuel to drip on the road surface, exhaust system or onto brake components. Steering and brake systems must be free from leaks. Catch trays or tanks to contain leaks are unacceptable.

#### **J1.3.2 Engine**

Must start easily and provide sufficient power. Frequent jump-starting is dangerous and unacceptable.

#### **J1.3.3 Cooling System**

Must provide efficient cooling for all climatic conditions. All drive belts and hoses must be free from deterioration and/or leaks.

#### **J1.3.4 Exhaust System**

Must be free from leaks and be securely mounted.

#### **J1.3.5 Exhaust Smoke**

Trucks must not emit visible smoke for continuous periods of more than 10 seconds (Protection of the Environment Operations Act 1997).

#### **J1.3.6 Transmission and Final Drive**

Must operate to the manufacturer's specifications and be free of leaks.

#### **J1.3.7 Hydraulics**

All hydraulic functions must respond quickly and smoothly, and be free from leaks and hydraulic creep.

### **J1.4 Cab/Chassis requirements**

#### **J1.4.1 Cabin**

Must be free from damage, cracks, advanced rust, missing or loose bolts, sharp edges or protrusions that could cause injury.

Steps and handrails must be in good condition as originally manufactured.

#### **J1.4.2 Windows**

The windscreen and all other windows must be free from defects that impair visibility. All glass must be of an approved safety type.

### **J1.4.3 Suspension**

Suspension components must not be broken, loose, cracked, cut, missing or modified. All nuts, bolts and locking devices must be in place and secure. The maximum allowable wear in any suspension component must not exceed manufacturers' specifications, or where these are not available, 3 mm.

### **J1.4.4 Steering**

Steering components must not be broken, loose, cracked, cut, missing or modified. All nuts, bolts and locking devices must be in place and secure. The maximum allowable free play in any steering joint must not exceed manufacturers' specifications, or where these are not available, 3mm. Rotational free play at the steering wheel must not exceed 100 mm.

The steering must operate smoothly in both directions.

### **J1.4.5 Tyres**

Must be free from deep cuts, bulges, exposed cords or other signs of carcass failure. Tyres must be the correct type, load rating and size to suit the wheel rims. Tyres must meet legal requirements.

It is preferred that trucks carry a spare wheel at all times.

## **J1.5 Miscellaneous requirements**

### **J1.5.1 Controls and Switches**

Controls and switches must be in good condition, perform as designed and be clearly and permanently labelled to indicate the direction of movement and or function.

### **J1.5.2 Seats**

All seats must be in good condition, secure and must not affect the operator's ability to operate the truck.

### **J1.5.3 Work Attachments/Tools**

All attachments must be in good condition and working order.

### **J1.5.4 Fifth Wheel (Turntable)**

Clearance in the fifth wheel must be within the manufacturer's specifications.

### **J1.5.5 Electrical System**

All electrical equipment must operate as intended by the manufacturer. Electrical wiring and connections, both inside and outside the truck, must be secure and free from any damage or corrosion. Insulation must not be chafed or exposed to excessive heat.

The battery must be securely mounted and free from any cracks or leaks. Loose connections, which could cause arcing, are unacceptable.

### **J1.5.6 Truck Security**

Parts of the truck which are critical to its operation and which are subject to vandalism must be adequately protected. Cabins must have provision to be locked.

### **J1.5.7 Tarping**

Secure tarping must be provided to cover the load. Permanent load covers (such as "Enviro" tarps) are preferred.

### **J1.5.8 Truck Body**

Trucks and trailers with hydraulic tipping bodies must have a self-supporting safety prop permanently attached to support the body when required. Tip-over axle/body tippers are exempt from safety props.

Bodies must be free of any defects that will allow any loss of material.

### **J1.5.9 Tow Bar**

Tow couplings must be stamped with the manufacturers name and capacity.

Trailer brake connections must be dual line air with self-sealing quick release couplings.

Safety chain connections must be of an approved type and capacity.

### **J1.5.10 Daily Inspection Reports**

Daily inspections must be carried out and reports must be filled out prior to the commencement of each shift and must be available in the truck for inspection.

## **J1.6 Nonconformity**

A truck with any of the following nonconformities must not be used on the site for the Works, and in the event the truck is on Site at the time the nonconformity is identified, must be immediately removed from the Site:

- (a) Defective neutral start where an automatic transmission is fitted;
- (b) Defective service, park or emergency brakes;
- (c) Defective seat belt or absence of a seat belt when required;
- (d) Inoperative or inaudible reverse alarm;
- (e) Dangerous suspension, steering or tyres;
- (f) Dangerous chassis defects;
- (g) Continuous dark exhaust smoke;
- (h) Truck is unregistered;
- (i) Any other condition which could impair the safe operation of the truck.

**SCHEDULE J2 PLANT REQUIREMENTS**

All plant must comply with Chapter 5 of the WHS Regulations, Federal and State legislation, and relevant Australian Standards in addition to the requirements set out below.

**J2.1 Safety standards****J2.1.1 Neutral Start**

Neutral start switches must operate on all transmissions other than manual gearboxes fitted with a mechanical type clutch.

Excavators and loaders are exempt from the normal type of neutral start switch. However, all original type safety/hydraulic locks must operate correctly and travel levers must self-centre to the neutral position.

**J2.1.2 Service Brakes**

Brake components must be free from leaks or defects and be securely mounted. Brake controls must be fully operational and free from any defects. Air tanks must be free of contamination.

Plant fitted with steel drums or a combination of steel drums/rubber tyres or tracks, while on the maximum operating gradient specified by the manufacturer, must be capable of stopping as shown in the table below:

Plant operating mass	Stopping distance from 5 km/h
Less than 5400 kg	1.2 metres
5400 kg to 13600 kg	1.5 metres
Greater than 13600 kg	1.9 metres

Plant fitted with rubber tyres, while on the maximum operating gradient specified by the manufacturer, must be capable of stopping as shown in the table below:

Plant operating mass	Stopping distance from 30 km/h
Up to 2500 kg	9 metres
Greater than 2500 kg	14 metres

Where it is not possible to test the brakes of load-carrying plant in a loaded condition, e.g. water tankers and dump trucks, this plant may be subjected to a brake test in a loaded condition at a time agreed with you.

**J2.1.3 Park Brake**

On implement-type plant, the park brake must be capable of holding the plant item on an incline:

- (a) of 15%, i.e. approximately 1 in 7, or 9 degrees for wheeled plant, or
- (b) 25%, i.e. 1 in 4, or 14 degrees for rollers.

For truck-mounted plant, the emergency brake must meet the following minimum braking standard:



Plant operating mass	Stopping distance from 30 km/h
Up to 2500 kg	22 metres
Greater than 2500 kg	34 metres

#### J2.1.4 Emergency Stop Devices

Emergency stops must be prominent, clearly and durably labelled and easily accessible to the operator. Handles, bars or push buttons must be coloured red. These devices must not be affected by any electrical or electronic malfunction.

#### J2.1.5 Protective Structures (ROPS/FOPS)

All earthmoving machinery designed to have a mass of 700 kg or more, but less than 100,000 kg must comply with the following:

- (a) if the machinery was manufactured, imported or originally purchased after 1989, it is securely fitted with a protective structure that conforms with AS 2294.1, AS 2294.2 and AS 2294.3 Earth-moving machinery – Protective structures, or
- (b) if the machinery was manufactured, imported or originally purchased during or before 1989, it is securely fitted with:
  - (i) a protective structure that conforms with AS 2294.1, AS 2294.2 and AS 2294.3, or
  - (ii) if such a structure is not available, an alternative protective structure designed by a suitably qualified engineer having regard to the performance requirements of AS 2294.1, AS 2294.2 and AS 2294.3.

All tractors designed to have a mass of 560 kg or more, but less than 15,000 kg must comply with the following:

- (a) if the tractor was manufactured, imported or originally purchased after 1981, it is securely fitted with a protective structure that conforms with AS 1636.1, AS 1636.2 and AS 1636.3 Tractors- Roll-over protective structures – Criteria and tests, or
- (b) if the tractor was manufactured, imported or originally purchased during or before 1981, it is securely fitted with:
  - (i) a roll-over protective structure that conforms with AS 1636.1, AS 1636.2 and AS 1636.3 Tractors- Roll-over protective structures – Criteria and tests, or
  - (ii) if such a structure is not available, an alternative roll-over protective structure designed by suitably qualified engineer having regard to the performance requirements of AS 1636.1.

The protective structure must be identified with the information required by

- (i) AS 2294.1, AS 2294.2 or AS 2294.3, or
- (ii) AS 1636.1,

whichever is appropriate.

#### Exclusions:

Subject to the conditions set out below, the following types of machinery are excluded from this section to fit operator protective structures that conform with AS 2294:

- (I) Road rollers or compactors with a mass of 2700 kg or less
- (II) Paving machines

- (III) Earthmoving equipment that is designed to be operated by an operator in a standing position. These include profilers, stabilisers, materials transfer vehicles and stand-up loaders and excavators
- (IV) Hydraulic excavators

The exclusions outlined above may be applied providing that:

- (#a) The risks of the earthmoving equipment or objects falling on their operators have been assessed and other means are used to control them. The risk assessment should be in writing and the controls should form part of the SWMS.

**NOTE:**

The risk must take into account such variable as: amount of load, distribution of load, speed of machine, ground conditions, gradient, tyre pressures, steering angle and resistance of object (such as machine's centre of gravity, stiffness of suspension and track width).

- (#b) Where a risk assessment indicates that the operator of a hydraulic excavator, including those designed to be operated in a standing position, is at risk from falling objects and/or objects that approach the excavator from the front of the excavator, it is fitted with a protective structure that conforms with AS 4988.
- (#c) Where a risk assessment indicates that compact excavators - those with an operating mass of between 1,000 kg and 6,000 kg – are at risk of tipping over, they are to be fitted with a structure that conforms to AS 4987.
- (#d) Where a risk assessment indicates that it is necessary to fit machines listed for exclusion with operator protective structures other than those within the scope of AS 4987 and AS 4988, the structure is designed by a suitably qualified engineer having regard to the performance requirements of the relevant part(s) of AS 2294. Such a structure would not require deformation testing if the engineer is satisfied that calculations are sufficient to prove its performance.

### **J2.1.6 Seat Belts**

All earth moving machinery fitted with a roll-over protective structure must be fitted with seat belts conforming to one of the following Standards:

- (i) Australian Standard AS 2664.
- (ii) Society of Automotive Engineers SAE J386.
- (iii) International Standard ISO 6683.

All tractors fitted with a roll-over protective structure must be fitted with seat belts conforming to one of the following Standards:

- (A) Australian Standard AS 2596.
- (B) Society of Automotive Engineers SAE J386 or equivalent.

Each seat belt assembly or part assembly must be permanently and legibly marked with the following:

- (a) The manufacturer's name and trademark, and
- (b) Date of manufacture by month and year, and
- (c) Manufacturer's identification code (relevant standard).

### **Exclusions:**

Earth moving equipment, which from the previous clause J2.1.5, may or may not be required to have protective structures (ROPS/FOPS), must be assessed individually for their requirement

for seat belts, depending upon their safe operation and risk assessment outcomes; for example, earth moving equipment, which has been designed for safe operation with the operator in a standing position.

The exclusions outlined above may be applied providing that the risks associated with not complying with the above requirements have been identified and assessed and other means are used to control them. The risk assessment must be in writing and the controls must form part of the SWMS.

#### **J2.1.7 Reverse or Travel Alarm**

All plant must be fitted with a reverse alarm, which is clearly audible and automatically activated when reverse gear is selected.

Excavators and plant with restricted operator vision in both forward and reverse directions must be fitted with a travel alarm, which operates in both directions. Alternatively, two alarms may be fitted.

Alarms which vary the output in response to changes in the surrounding noise level, (e.g. "Smart Alarm") are preferred. The alarm's base noise level must be not less than 87 dB(A) measured at a distance of 1 metre. Self-adjusting type alarms must be mounted with an unobstructed 'vision' to the rear of the plant. Fixed output reverse alarms originally fitted by the equipment manufacturer are acceptable.

For rollers with an operating mass less than 4,500 kg, an alarm with a base noise level of 85 dB(a) is acceptable, provided the plant:

- (a) has a noise level less than 80 dB(A),
- (b) does not have an enclosed cab.

#### **J2.1.8 Compulsory Signs**

Minimum compulsory sign requirements are summarised in Table G22/J.1 at the end of this section.

##### **1. Hearing Protection**

Any plant with a noise level above 85 dB(A) must be fitted with two 225 mm hearing protection signs, one each side, and one 50 mm hearing protection sign fitted to the operator's console.

##### **2. S.W.L.**

Safe working loads must be distinctively labelled on all backhoes, excavators and loaders that are used for lifting loads.

##### **3. Electrical Hazard Warning**

Plant whose height can alter whilst working must be fitted with an Electrical Hazard Warning notice that displays the minimum safe working distances.

##### **4. Roll over Hazard - Seat Belt Warning**

All plant fitted with a ROPS canopy must have a safety sign warning that a roll over hazard exists, requiring the operator to wear the seat belt.

##### **5. Articulation Joint Crush Zone**

##### **6. Hydraulic Steering**

Plant with hydraulic steering must have a sign warning of the importance of maintaining hydraulic fluid level.

##### **7. Confined Space**

Plant with a confined space, e.g. water tankers, must have a sign fitted near the entry point to the confined space.

**8. Dual Control**

**9. Left Hand Drive**

**10. Water-filled Tyres**

Plant with water-filled tyres must have a warning sign adjacent to each tyre.

**11. Lime/Cement Spreaders**

Lime/cement spreaders are to be fitted with the following warning signs to advise the operator of the personal protective equipment to be worn:

- (i) Dust Mask
- (ii) Eye Protection (goggles not glasses)
- (iii) Gloves
- (iv) Overalls

**J2.1.9 Quickhitch**

All hydraulic quickhitches must comply with AS1418.8. The quickhitch and all Attachments must be correctly matched.

Hitches must be identified with:

- (a) a unique identification mark
- (b) manufacturer's name and model
- (c) maximum rated attachment capacity
- (d) mass of the hitch
- (e) lift point capacity (kg)

**J2.1.10 Machinery Guards**

Fit all rotating, moving or hot components with an appropriate safety guard to prevent injury to any person.

**J2.1.11 Provision of Information**

Ensure that relevant information on operating and emergency features of the plant is clearly displayed for the use of plant operators and inspectors and other persons affected by the operation of the plant.

**J2.1.12 Daily Inspection Reports**

Daily Inspections must be carried out and Reports must be filled out prior to the commencement of each shift and must be available in the plant item for inspection.

**J2.2 Registration Requirements**

**J2.2.1 Registration**

All plant must meet the requirements for NSW registration and must have either full registration or conditional registration.

The appropriate registration label must be affixed in a secure, visible location. All old labels must be removed. The plant must also display the current registration plates.

### **J2.2.2 Equipment**

The minimum equipment requirements for plant are shown in Table G22/J.2 at the end of this section. These requirements are in accordance with those in RMS publication “Plant Vehicles - Registration Options”.

### **J2.2.3 Windscreen Wipers**

Plant with windscreen must have an operative windscreen wiper, which effectively clears the screen directly in front of the operator and gives an adequate view in front of the plant. Wipers fitted to other windows must also operate effectively.

### **J2.2.4 Lights and Reflectors**

The requirements for lights and reflectors are shown in Table G22/J.2 at the end of this Annexure.

Plant for night work must have suitable and efficient lights, including headlights or work lights.

### **J2.2.5 Reflective Tape**

Fit dozers and excavators that do not have rear reflectors, and all rollers with side and rear reflective tape. Requirements for other plant are shown in Table G22/J.2 at the end of this Annexure.

#### **1. Material**

The tape must be **red** and **yellow** with a retro-reflective surface. Photometric performance and durability must comply with Class 2, AS/NZS 1906.

#### **2. Size**

The total surface area of reflective tape must be at least 0.32 square metres, e.g. 150 mm by 2,100 mm.

#### **3. Installation**

The tape must be evenly applied to the rear and sides of the plant. Tape must not be applied to the front of plant.

Where practical, the lower edge of the tape must be between 400 mm and 1,500 mm from the ground, with the outermost edge less than 150 mm from the corners of the plant.

### **J2.2.6 Horn**

All plant must be equipped with a clearly audible horn. Exhaust whistles, compression whistles, sirens or alternating tone horns are not acceptable.

### **J2.2.7 Amber Beacon**

Plant must have at least one amber beacon that is wired through the ignition switch and is active whenever the plant is travelling or operating on the job site. The beacon must be mounted as near as possible to the top of the plant, and be clearly visible in normal daylight up to a distance of 200 metres (and closing) in all directions. The beacon must be either a rotating type (minimum 55 watt) or flashing strobe type (minimum 8-joule double pulse).

Water tankers may be fitted with a switch to turn the beacon off when travelling on roads outside the job site.

### **J2.2.8 Rear Vision Mirrors**

All plant must be fitted with rear vision mirrors that provide adequate rear vision on both sides of the plant.

## J2.3 General Requirements

### J2.3.1 Mechanical

#### 1. Leaks

The engine, transmission, drive-line, hydraulics and fuel system must not have any leaks which allow oil or fuel to drip on the road surface, or on exhaust system or on brake components. Steering and brake systems must be free from leaks. Catch trays or tanks to contain leaks are unacceptable.

#### 2. Engine

Must start easily and provide sufficient power. Frequent jump-starting is dangerous and unacceptable.

#### 3. Cooling System

Must provide efficient cooling for all climatic conditions. All drive belts and hoses must be free from deterioration and/or leaks.

#### 4. Exhaust System

Must be free from leaks and be securely mounted.

#### 5. Exhaust Smoke

Plant must not emit visible smoke for continuous periods of more than 10 seconds (Protection of the Environment Operations Act 1997).

#### 6. Transmission and Final Drive

Must operate to the manufacturer's specifications and be free of leaks.

Manual gearboxes coupled to hydrostatic drives must be locked in gear to prevent accidental gear selection, when a separate effective service brake is not fitted.

#### 7. Hydraulics

All hydraulic functions must respond quickly and smoothly, and be free from leaks and hydraulic creep. Time for the hydraulics to 'warm up' must be within manufacturer's specifications.

Plant used as a crane with a safe working load greater than 3,000 kg must be fitted with anti-drop valves.

### J2.3.2 Chassis

#### 1. Chassis/Frame

Must be free from cracks, advanced rust, missing or loose bolts, sharp edges or protrusions that could cause personal injury.

#### 2. Body/Cabin/Steps/Handrails

Must be free from cracks, advanced rust, missing or loose bolts, sharp edges or protrusions that could cause injury. All doors, door locks and latches must be secure and functional.

Plant with fully enclosed cabins that have no opening windows must have an operational air conditioner fitted.

Steps and handrails must be in good condition as originally manufactured.

#### 3. Windows

The windscreen and all other windows must be free from defects that impair visibility. All glass must be of an approved safety type.

**4. Suspension**

Suspension components must not be broken, loose, cracked, cut, missing or modified. All nuts, bolts and locking devices must be in place and secure. The maximum allowable wear in any suspension component is 3 mm.

**5. Steering**

Steering components must not be broken, loose, cracked, cut, missing or modified. All nuts, bolts and locking devices must be in place and secure. The maximum allowable free play in any steering joint is 3 mm. Rotational free play at the steering wheel must not exceed 100 mm.

The steering must operate smoothly in both directions. The operation of the steering, from lock to lock, on plant with full hydraulic steering is to be checked at approximately half the maximum engine speed.

**6. Tyres**

Must be free from deep cuts, bulges, exposed cords or other signs of carcass failure. Traction tyres must provide adequate grip. Tyres must be of the correct type, load rating and size to suit the wheel rims.

**7. Tracks**

Tracks and related equipment must be in good condition and must provide sufficient traction.

**J2.4 Miscellaneous**

**1. Controls and Switches**

All controls and switches must:

- (i) be secure;
- (ii) function correctly and be free of excessive wear;
- (iii) perform as designed; and
- (iv) be permanently and clearly labelled to indicate the direction of the movement.

**2. Seat**

The operator's seat must be in good condition, secure and must not affect the operator's ability to operate the plant.

**3. Work Attachments/Tools**

All Attachments must be securely mounted, free from cracks, leaks or any defects and be in good working order. (Attachments include items such as buckets, blades, cutting edges, tynes, hydraulic tools, etc)

**4. Articulation Joints**

Clearance in the articulation joint must be within the manufacturer's specifications. There must also be a means of locking the articulation joint.

**5. Electrical System**

All electrical equipment must operate as intended by the manufacturer. Electrical wiring and connections, both inside and outside the plant, must be secure and free from any damage or corrosion. Insulation must not be chafed or exposed to excessive heat.

The battery must be securely mounted and free from any cracks or leaks. Loose connections, which could cause arcing, are unacceptable.

**6. Plant Security**

Parts of the plant that are critical to its operation and are subject to vandalism must be adequately protected, e.g. engine covers, console covers and cabins, by appropriate locking devices.

**7. Noise level**

Determine the noise level at the operator's position in accordance with AS/NZS 1269.1. The noise level will be:

- (a) included in the information required by Clauses 3.2 and J2.1.11; and
- (b) the controls, that ensure people on the site are not exposed to noise levels which exceed a level equivalent to 85 decibels (85 dB(A)) over an eight hour day, are incorporated into the Safe Work Method Statement required by Clause 3.2.

**8. Lifting Requirements**

Plant that may be used as cranes, e.g. backhoes, loaders and excavators, having components used for lifting, e.g. hooks and lugs, that do not have a manufacturer's ID and SWL, require a structural engineer's certificate for these components.

**J2.5 Nonconformities**

Plant with any of the following nonconformities must not be used on the site for the Works, and in the event the plant is on Site at the time the nonconformity is identified, must be immediately removed from the Site:

- (a) Defective neutral start switch;
- (b) Defective service, park or emergency brakes;
- (c) Defective seat belt or absence of a seat belt when ROPS is fitted;
- (d) Inoperative or inaudible reverse/travel alarm;
- (e) Mechanical lock pin not available or not fitted to the quick hitch;
- (f) Machinery guards not fitted;
- (g) No manual transmission lock where required;
- (h) Dangerous suspension, steering or tyres;
- (i) Any other condition, which could impair the safe operation of the plant.



Table G22/J.1 - Minimum Compulsory Sign Requirements

Plant Item	Hearing Protection	SWL	Electrical Hazard Plate	Roll-over Hazard, Wear Seat Belt	Articulation Joint Crush Zone	Hydraulic Steering Warning	Confined Spaces	Dual Control	Left Hand Drive
Backhoe loader	Yes <sup>2</sup>	Yes <sup>1</sup>	Yes	Yes <sup>1</sup>	No <sup>3</sup>	Yes	No	No	No
Compactor	Yes <sup>2</sup>	No	No	Yes <sup>1</sup>	Yes	Yes	No	No	No
Crane	Yes <sup>2</sup>	Yes <sup>1</sup>	Yes	No	Yes <sup>1</sup>	Yes <sup>1</sup>	No	No	Yes <sup>1</sup>
Dozer	Yes <sup>2</sup>	No	No	Yes <sup>1</sup>	No	Yes	No	No	No
EWP	Yes <sup>2</sup>	Yes <sup>1</sup>	Yes	No	No	No	No	No	No
Excavator	Yes <sup>2</sup>	Yes <sup>1</sup>	Yes	Yes <sup>1</sup>	No	Yes	No	No	Yes <sup>1</sup>
Grader	Yes <sup>2</sup>	No	No	Yes <sup>1</sup>	Yes <sup>1</sup>	Yes	No	No	No
Lime/cement spreader <sup>4</sup>	Yes <sup>2</sup>	No	No	No	Yes <sup>1</sup>	No	Yes	No	No
Loader	Yes <sup>2</sup>	Yes <sup>1</sup>	Yes	Yes <sup>1</sup>	Yes <sup>1</sup>	Yes	No	No	No
Multi-tyred roller	Yes <sup>2</sup>	No	No	Yes <sup>1</sup>	No	Yes	Yes <sup>1</sup>	Yes <sup>1</sup>	No
Padfoot roller	Yes <sup>2</sup>	No	No	Yes <sup>1</sup>	Yes	Yes	No	Yes <sup>1</sup>	No
Paver	Yes <sup>2</sup>	No	No	No	No	Yes	No	Yes <sup>1</sup>	No
Profiler	Yes <sup>2</sup>	No	Yes	Yes <sup>1</sup>	No	Yes	No	Yes <sup>1</sup>	No
Scraper	Yes <sup>2</sup>	No	No	Yes <sup>1</sup>	Yes	Yes	No	No	Yes <sup>1</sup>
Skidsteer loader	Yes <sup>2</sup>	Yes <sup>1</sup>	Yes <sup>1</sup>	Yes <sup>1</sup>	No	Yes	No	No	No
Smooth drum roller	Yes <sup>2</sup>	No	No	Yes <sup>1</sup>	Yes	Yes	No	Yes <sup>1</sup>	No
Soil stabiliser	Yes <sup>2</sup>	No	No	Yes <sup>1</sup>	Yes <sup>1</sup>	Yes	No	Yes <sup>1</sup>	Yes <sup>1</sup>
Sweeper	Yes <sup>2</sup>	No	Yes <sup>1</sup>	No	Yes <sup>1</sup>	Yes <sup>1</sup>	Yes	Yes <sup>1</sup>	No
Tandem drum roller	Yes <sup>2</sup>	No	No	Yes <sup>1</sup>	Yes	Yes	No	Yes <sup>1</sup>	No
3 point roller	Yes <sup>2</sup>	No	No	Yes <sup>1</sup>	Yes	Yes	No	Yes <sup>1</sup>	No
Tractor	Yes <sup>2</sup>	No	No	Yes <sup>1</sup>	No	Yes	No	No	No
Water tanker	Yes <sup>2</sup>	No	No	No	Yes <sup>1</sup>	Yes <sup>1</sup>	Yes	No	No

**Notes applying to table:**

- Denotes that these warning signs must be fitted where applicable.
- Hearing Protection signs must be fitted when noise levels exceed 85dB(A)
- Recommended that these signs be fitted near the boom area.
- Lime/cement spreaders must also be fitted with warning signs to advise that eye protection, dust mask, gloves and overalls must be worn whilst operating the equipment.
- All plant with water-filled tyres, must have a warning sign adjacent to each tyre.
- Emergency stop devices must be clearly marked/labelled.

Table G22/J.2 - Minimum Plant/Equipment Requirements

Plant Item	Amber rotating beacon	Brake lights & turn signals	Headlights, tail lights & clearance lights	Rear reflectors	Rear & side reflective tape	Rear vision mirror(s)	Horn	Reverse or travel alarm	Neutral Start
Backhoe loader	Yes	Yes	Yes <sup>1</sup>	Yes	No	Yes	Yes	Yes	Yes
Compactor	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Crane	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes <sup>4</sup>
Dozer	Yes	No	No	Yes	Yes <sup>3</sup>	Yes	Yes	Yes	Yes
EWP	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes <sup>4</sup>
Excavator	Yes	No	No	Yes	Yes <sup>3</sup>	Yes	Yes	Yes	Yes <sup>4</sup>
Grader	Yes	Yes	Yes <sup>1</sup>	Yes	No	Yes	Yes	Yes	Yes <sup>1</sup>
Lime/cement spreader <sup>4</sup>	Yes	Yes	Yes <sup>1</sup>	Yes	No	Yes <sup>5</sup>	Yes <sup>5</sup>	Yes <sup>5</sup>	Yes
Loader	Yes	Yes	Yes <sup>1</sup>	Yes	No	Yes	Yes	Yes	Yes
Multi-tyred roller	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Padfoot roller	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Paver	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Profiler	Yes	No	No	No	Yes <sup>2</sup>	Yes	Yes	Yes	Yes
Scraper	Yes	No	No	No	Yes <sup>2</sup>	Yes	Yes	Yes	Yes
Skidsteer loader	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Smooth drum roller	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes <sup>4</sup>
Soil stabiliser	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Sweeper	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Tandem drum roller	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
3 point roller	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
Tractor	Yes	Yes	Yes <sup>1</sup>	Yes	No	Yes	Yes	Yes	Yes <sup>4</sup>
Water tanker	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes <sup>1</sup>

## Notes applying to table:

- Only required if plant item is on full 24 hour registration.
- If no rear reflectors, brake lights and turn signals.
- If no rear reflectors.
- Refer to Schedule J2 for detailed requirements
- Where applicable.

# ANNEXURE G22/K – HEALTH AND SAFETY INSPECTION CHECKLIST

This checklist is intended as a guide only. Use it to the extent that it is appropriate to the Works Under the deed and should add other deed specific checklists for the purposes of completing physical inspections.

## General Health and Safety Physical Inspection Checklist

Project Deed Title: .....

Project Deed No: .....

Contractor: .....

Worksite Location: ..... Date: .....

Persons carrying out inspection: .....

**Indicate in the following manner:**  
 Acceptable     Not Acceptable    *N/A* Not Applicable    *N/C* Not Checked

<b>1. Health and Safety Systems</b>		
1.1	WHS policy displayed	
1.2	Accident report book	
1.3	Induction records	
1.4	Injury management policy available	
1.5	Workplace inspection records	
1.6	Emergency procedures in place	
1.7	Training records	
1.8	Documented safe work procedures	
1.9	Protective clothing & equipment records	
1.10	MSDS available	
1.11	Health & safety systems manual	
1.12	Management safety representative appointed	
1.13	Deed risk assessment available	
1.14	Deed site specific health & safety system available	
<b>2. Housekeeping</b>		
2.1	Work areas free from rubbish & obstructions	
2.2	Clear access and egress in the workplace	
2.3	Surfaces safe and suitable	
2.4	Free from slip/trip hazards	
2.5	Floor openings covered	
2.6	Stock/material stored safely	
<b>Aisles</b>		
2.7	Unobstructed and clearly defined	
2.8	Adequate lighting	
2.9	Vision at corners	
2.10	Wide enough	
<b>3. Electrical</b>		
3.1	No broken plugs, sockets, switches	
3.2	No frayed or defective leads	
3.3	Power tools in good condition	
3.4	No work near exposed live electrical equipment	
3.5	Tools and leads inspected and tagged	
3.6	No strained leads	
3.7	No cable-trip hazards	
3.8	Switches/circuits identified	

3.9	Lock-out procedures/danger tags in place	
3.10	Earth leakage systems used	
3.11	Start/stop switches clearly identified	
3.12	Switchboards secured	
3.13	Appropriate fire fighting equipment	
<b>4. Mobile Plant and Equipment</b>		
4.1	Plant and equipment in good condition	
4.2	Daily safety inspection procedures/checklists	
4.3	Fault reporting/rectification system used	
4.4	Operators trained and licensed	
4.5	Warning and instructions displayed	
4.6	Warning lights operational	
4.7	Reversing alarm operational	
4.8	Satisfactory operating practices	
4.9	Fire extinguisher	
4.10	Tyres satisfactory	
4.11	SWL of lifting or carrying equipment displayed	
4.12	Certificates of competency sighted	
4.13	Trainee log books in use	
4.14	Plant keys and unattended plant kept secure	
<b>5. Machinery and Workbenches</b>		
5.1	Adequate work space	
5.2	Clean and tidy	
5.3	Free from excess oil and grease	
5.4	Adequately guarded	
5.5	Warnings or instructions displayed	
5.6	Emergency stops appropriately placed and clearly identifiable	
5.7	Operated safely and correctly	
<b>WORKBENCHES</b>		
5.8	Clear of rubbish	
5.9	Tools in proper place	
5.10	Duckboards or floor mats provided	
<b>6. Hazardous Substances</b>		
6.1	Chemical register developed	
6.2	Stored appropriately	
6.3	Containers labelled correctly	
6.4	Adequate ventilation/exhaust systems	
6.5	Protective clothing/equipment available/used	
6.6	Satisfactory personal hygiene practices	
6.7	Waste disposal procedures	
6.8	Material safety data sheets available	
6.9	Chemical handling procedures followed	
6.10	Appropriate emergency/first aid equipment - shower, eye bath, extinguishers	
6.11	Hazchem signing displayed	
<b>7. Welding</b>		
7.1	Only trained personnel permitted to weld	
7.2	Gas bottles securely fixed to trolley	
7.3	Welding fumes well ventilated	
7.4	Fire extinguisher near work area	
7.5	Only flint guns used to light torch	
7.6	Flash back spark arresters fitted	
7.7	Vision screens used for electric welding	
7.8	LPG bottles within 10 year stamp	
7.9	PPE provided and worn	
7.10	Hot Work permit system used	
<b>8. Excavations</b>		
8.1	Shoring in place and in sound condition for all trenches more than 1.5 m	
8.2	Excavation well secured	

8.3	Signage displayed	
8.4	Banks battered correctly and spoil away from edge	
8.5	Sufficient clear areas and safe access around excavation	
8.6	Separate access and egress points from excavation	
8.7	Safe work procedure in place	
<b>9. Prevention of Falls</b>		
9.1	All work platforms have secure handrails, guarding or fence panels	
9.2	Fall arrest systems maintained and used as required	
9.3	Harness and lanyard or belts provided	
9.4	All floor penetrations covered or barricaded	
9.5	Unsafe areas signposted and fenced	
9.6	Safe work procedure in place	
<b>10. Stairs, Steps and Landings</b>		
10.1	No worn or broken steps, rungs or styles	
10.2	Handrails in good repair	
10.3	Clear of obstructions	
10.4	Adequate lighting	
10.5	Emergency lighting	
10.6	Non-slip treatments/treads in good condition	
10.7	Kick plates where required	
10.8	Clear of debris and spills	
10.9	Used correctly	
<b>11. Ladders</b>		
11.1	Ladders in good condition	
11.2	Ladders not used to support planks for working platforms	
11.3	Correct angle to structure 1:4	
11.4	Extended 1.0 metre above top landing	
11.5	Straight or extension ladders securely fixed at top	
11.6	Metal ladders not used near live exposed electrical equipment	
<b>12. Scaffolding</b>		
12.1	Employees trained and records maintained	
12.2	Scaffold design complies with AS 1576 and is certified	
12.3	Safe and suitable access and egress to scaffold	
12.4	Handover certificates recorded	
12.5	Records of inspections maintained	
12.6	Repair and maintenance details held on site	
<b>13. Personal Protection</b>		
13.1	Workers provided with PPE	
13.2	Workers trained in the use of PPE	
13.3	PPE being worn by workers	
13.4	Regular maintenance checks performed on PPE	
13.5	Sun cream and sunglasses provided	
13.6	Correct signage at access points	
13.7	Hard hat areas correctly sign posted	
13.8	Hard hats available to visitors on site	
13.9	Hard hats are within the life span set out by AS 1800	
<b>14. Safety Clothing</b>		
14.1	Safety footwear appropriate to the job is worn	
14.2	High visibility clothing is worn	
14.3	Clothing is in good condition	
<b>15. Manual Handling</b>		
15.1	Mechanical aids provided and used	
15.2	Safe work procedures in place	
15.3	Manual handling risk assessment performed	
15.4	Manual handling controls implemented	
<b>16. Workplace Ergonomics</b>		
16.1	Workstation and seating design acceptable	

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16.2	Ergonomic factors considered in work layout and task design	
16.3	Use of excessive force and repetitive movements minimised	
16.4	Appropriate training provided	
<b>17. Material Handling and Storage</b>		
17.1	Construction site storage areas established	
17.1	Stacks stable	
17.2	Heights correct	
17.3	Sufficient space for moving stock	
17.4	Material stored in racks/bins	
17.5	Shelves free of rubbish	
17.6	Access around stacks and racks clear	
17.7	Drums checked	
17.8	Pallets in good repair	
17.9	Heavier items stored low	
17.10	No danger of falling objects	
17.11	No sharp edges	
17.12	Safe means of accessing high shelves	
17.13	Racks clear of lights/sprinklers	
17.14	Bundling and containment provided and operational	
<b>18. Confined Spaces</b>		
18.1	Risk assessment undertaken	
18.2	Communication and rescue plan in place	
18.3	Safety equipment in good working condition	
18.4	Suitable training provided to employees	
18.5	Confined Space permit used	
18.6	All confined spaces identified and appropriately signposted	
<b>19. Lasers and Non-destructive Testing Equipment</b>		
19.1	Operator has appropriate operator licence	
19.2	Signage displayed	
19.3	Equipment not used in a manner to endanger other persons	
<b>20. Demolition</b>		
20.1	Risk assessment undertaken in advance	
20.2	Access prevented to demolition area	
20.3	Overhead protection in place	
20.4	Protection of general public	
20.5	Safe work procedure in place	
20.6	Comply with WorkCover demolition licensing requirements	
<b>21. Public Protection</b>		
21.1	Appropriate barricades, fencing, hoarding, gantry secure and in place	
21.2	Signage in place	
21.3	Suitable lighting for public access	
21.4	Footpaths clean and free from debris	
21.5	Dust and noise controls in place	
21.6	Site access controlled	
21.7	Traffic management procedures in place	
21.8	Public complaints actioned	
<b>22. Amenities</b>		
22.1	Washrooms clean	
22.2	Toilets clean	
22.3	Lockers clean	
22.4	Meal rooms clean and tidy	
22.5	Rubbish bins available - covered	
22.6	Drinking water supplied	
22.7	Amenities comply with WHS Regulation	
<b>23. First Aid</b>		
23.1	Cabinets and contents clean and orderly	
23.2	Stocks meet requirements	

23.3	First aiders names displayed	
23.4	First aiders location and phone numbers	
23.5	Qualified first aider(s)	
23.6	Record of treatment and of supplies dispensed	
<b>24. Lighting</b>		
24.1	Adequate and free from glare	
24.2	Lighting clean and efficient	
24.3	Windows clean	
24.4	No flickering or inoperable lights	
24.5	Emergency lighting system	
<b>25. Fire Control</b>		
25.1	Extinguishers in place	
25.2	Fire fighting equipment serviced/tagged	
25.3	Appropriate signing of extinguishers	
25.4	Extinguishers appropriate to hazard	
25.5	Emergency exit signage	
25.6	Exit doors easily opened from inside	
25.7	Exit path ways clear of obstruction	
25.8	Alarm/communication system - adequate	
25.9	Smoking/naked flame restrictions observed	
25.10	Minimum quantities of flammables at workstation	
25.11	Flammable storage procedures	
25.12	Emergency personnel identified and trained	
25.13	Emergency procedures documented - issued	
25.14	Emergency telephone numbers displayed	
25.15	Alarms tested	
25.16	Trial evacuations conducted	
25.17	Personnel trained in use of fire fighting equipment	
<b>26. Tunnelling</b>		
26.1	Roof and side supports in place, in sound conditions and in accordance with latest approved Design Documentation drawings	
26.2	Self support or random bolting of any length approved by designer	
26.3	Safe work procedure in place	
<b>ACTION AFTER INSPECTION</b>		
<b>Observations (OBS)</b>		
<b>Corrective Action Requests (CAR)</b>		
<b>Signed: ..... Position: ..... Date: .. / .. / ..</b>		

**ANNEXURE G22/L – CONTRACTOR WHS MONTHLY REPORT**

WHS Report No: \_\_\_\_\_

<b>Project Deed Title:</b>	<b>Month:</b>
<b>Project Deed No:</b>	<b>Prepared by:</b>
<b>Contractor:</b>	<b>Date:</b>
<b>Trading as:</b>	

Performance Indicators		
Indicator	Current Month	Total ( To date )
Number of Lost Time Injuries (LTI)		
Working Days Lost Due to Injury		
Number of Workplace Injuries (WPI)		
Number of First Aid Treatments		
Number of Incidents (Including LTI+WPI+FAI)		
Number of reported Near Miss		
Number of Inspections / Audits Conducted		
Number of Workers		
Total Person Hours Exposed		
Lost Time Injury Incidence Rate (LTIIR)		<i>(Whole of Project Deed)</i>
Lost Time Injury Frequency Rate (LTIFR)		

Status of Lost Time Injuries for this Month								
Name	Injury	Code	Date of Incident	Days Lost	Incident Details	Controls	Forecast Return	Actual Return

Status of Property Damage						
Item	Code	Damage Type	Code	Date of Incident	Down Time	

WHS Risk Assessment and Risk Control Plan	
WHS risk assessment and risk control plan covers all proposed activities with identified risks:	Yes / No
All new hazards have been included in the plan:	Yes / No

WHS Corrective Actions						
WHS Corrective Action Request	Code (CM 21)	Risk Class	Status: Open/Closed	Action Taken	Code	Comments




<b>WorkCover Activities / Inspections</b>		
<b>Notice Details</b>	<b>Date</b>	<b>Code</b>

<b>Outcomes of WHS Audits / Inspections</b>	
<b>Outcomes</b>	

<b>Comments on WHS Performance</b>	
<b>RMS Project Manager:</b> Comments:	
<b>Contractor Representative:</b> Comments:	

**ANNEXURE G22/M – REFERENCED DOCUMENTS**

Refer to Clause 1.2.4.

**RMS Specifications**

RMS D&C Q6	Quality Management Systems
RMS D&C G10	Traffic Management

**Australian Standards**

AS/NZS 1269.1	Occupational noise management - Measurement and assessment of noise emission and exposure
AS 1418	Cranes, hoists and winches
AS 1576	Scaffolding
AS 1636.1	Tractors – Roll-over Protective Structure – Criteria and Tests – Conventional Tractors
AS 1636.2	Tractors – Roll-over Protective Structure – Criteria and Tests – Conventional Tractors
AS 1636.3	Tractors – Roll-over Protective Structure – Criteria and Tests – Mid-mounted for Narrow-track Tractors
AS 1800	The selection, care and use of industrial safety helmets
AS/NZS 1906	Retroreflective materials and devices for road traffic control devices
AS 2012.2	Acoustics – Measurement of the airborne noise emitted from earth-moving machinery and agricultural tractors – Stationary test condition – Operator’s position
AS 2294	Earth-moving machinery – Protective structures
AS 2550	Cranes, hoists and winches
AS 2596	Seat Belt Assemblies for Motor Vehicles (ECC regulation No 16 MOD)
AS 2664	Earth-moving machinery – Seat belts and seat belt anchorages
AS 2865	Safe working in a confined space
AS/NZS 4801	Occupational health and safety management systems – Specification with guidance for use
AS/NZS 4804	Occupational health and safety management systems – General guidelines on principles, systems and supporting techniques
AS 4987	Earth-moving machinery – Tip-over protection structure (TOPS) for compact excavators – Laboratory tests and performance requirements
AS 4988	Earth-moving machinery – Hydraulic excavators - Laboratory tests and performance requirements for operator protective guards
ISO 9000	AS/NZS ISO 9000, Quality management systems – Fundamentals and vocabulary

**International Standards**

ISO 6683            Earth-moving Machinery – Seat Belts and Seat Belt Anchorages

**NSW Government**

Work Health and Safety Act 2011

Work Health and Safety Regulation 2011

Protection of the Environment Operations Act 1997

NSW Government WHS Management Systems Guidelines (*available on CACC website - [www.cpsc.nsw.gov.au](http://www.cpsc.nsw.gov.au)*)

**WorkCover**

Tunnels Under Construction: Code of Practice 2006

Electrical Practices For Construction Work: Code of Practice 2007

Work Near Overhead Power Lines: Code of Practice 2006

Work Near Underground Assets: Guide 2007

Guidance for the Provisions of Cranes, Hoists and Winches Under WHS Legislation in NSW

**Society of Automotive Engineers**

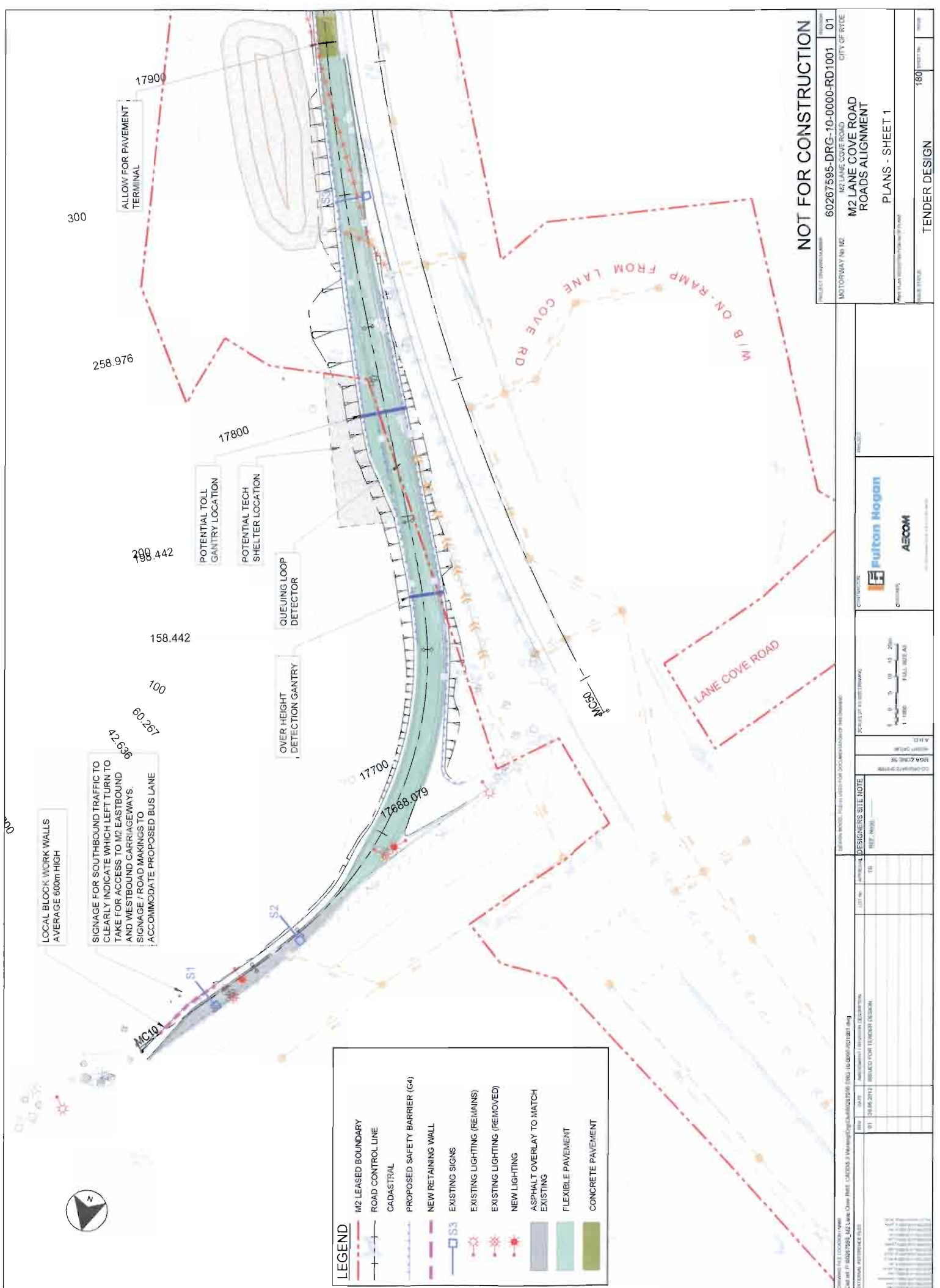
SAE J386            Operator Restraint System for Off-Road Work Machines

**Other**

National Code of Practice for Induction for Construction Work (2007)

National Code of Practice for Manual Handling (2005)

**Appendix 8.3 Pavement Performance, Configuration and Extent**



LOCAL BLOCK WORK WALLS  
AVERAGE 600m HIGH

SIGNAGE FOR SOUTHBOUND TRAFFIC TO CLEARLY INDICATE WHICH LEFT TURN TO TAKE FOR ACCESS TO M2 EASTBOUND AND WESTBOUND CARRIAGEWAYS. SIGNAGE / ROAD MARKINGS TO ACCOMMODATE PROPOSED BUS LANE

LEGEND	
	M2 LEASED BOUNDARY
	ROAD CONTROL LINE
	CADASTRAL
	PROPOSED SAFETY BARRIER (G4)
	NEW RETAINING WALL
	EXISTING SIGNS
	EXISTING LIGHTING (REMAINS)
	EXISTING LIGHTING (REMOVED)
	NEW LIGHTING
	ASPHALT OVERLAY TO MATCH EXISTING
	FLEXIBLE PAVEMENT
	CONCRETE PAVEMENT

**NOT FOR CONSTRUCTION**

PROJECT IDENTIFICATION NUMBER: 60267595-DRG-10-0000-RD1001\_01

MOTORWAY No M2: M2 LANE COVE ROAD, CITY OF RYDE

ROADS ALIGNMENT: M2 LANE COVE ROAD

PLANS - SHEET 1

180 SHEET No.

TENDER DESIGN

DESIGNERS SITE NOTE

DATE: 01 - 20.05.2012

ISSUED FOR TENDER DESIGN

DESIGNER: [Signature]

DATE: 01 - 20.05.2012

ISSUED FOR TENDER DESIGN

SCALE: 1:1000 FULL SIZE A3

PROJECT: M2 LANE COVE ROAD

CLIENT: City of Ryde

DESIGNER: Fulston Hogan

CONTRACTOR: AECOM



400

18000

500

524.060

18081.564

18100

18161.564

18200

RMS BACKBONE ALONG  
ENTIRE LENGTH OF  
RAMP / WIDENING



WEAVING IN THIS SECTION  
TO BE ASSESSED IN DETAIL  
DURING CONCEPT DEVELOPMENT

**LEGEND**

- M2 LEASE BOUNDARY
- ROAD CONTROL LINE
- CADASTRAL
- PROPOSED SAFETY BARRIER (G4)
- NEW RETAINING WALL
- EXISTING SIGNS
- EXISTING LIGHTING (REMAINS)
- EXISTING LIGHTING (REMOVED)
- NEW LIGHTING
- ASPHALT OVERLAY TO MATCH EXISTING
- FLEXIBLE PAVEMENT
- CONCRETE PAVEMENT

**NOT FOR CONSTRUCTION**

PROJECT NUMBER: 60267595-DRG-10-0000-RD1002  
 REGION: 01  
 MOTORWAY No: M2  
 LOCALITY: M2 LANE COVE ROAD  
 CITY OF RYDE  
 ROAD NAME: M2 LANE COVE ROAD  
 ROAD ALIGNMENT  
 PLANS - SHEET 2

DATE: 18/07/2012  
 SCALE: 1:1000  
 TENDER DESIGN

DESIGNER: **Fulton Hogan**  
 ENGINEER: **AECOM**

PROJECT NO: 60267595-DRG-10-0000-RD1002  
 SHEET NO: 2 OF 2

DATE: 18/07/2012  
 SCALE: 1:1000

DESIGNER'S SITE NOTE

REVISIONS:

NO.	DATE	DESCRIPTION
01	18/07/2012	ISSUED FOR TENDER DESIGN

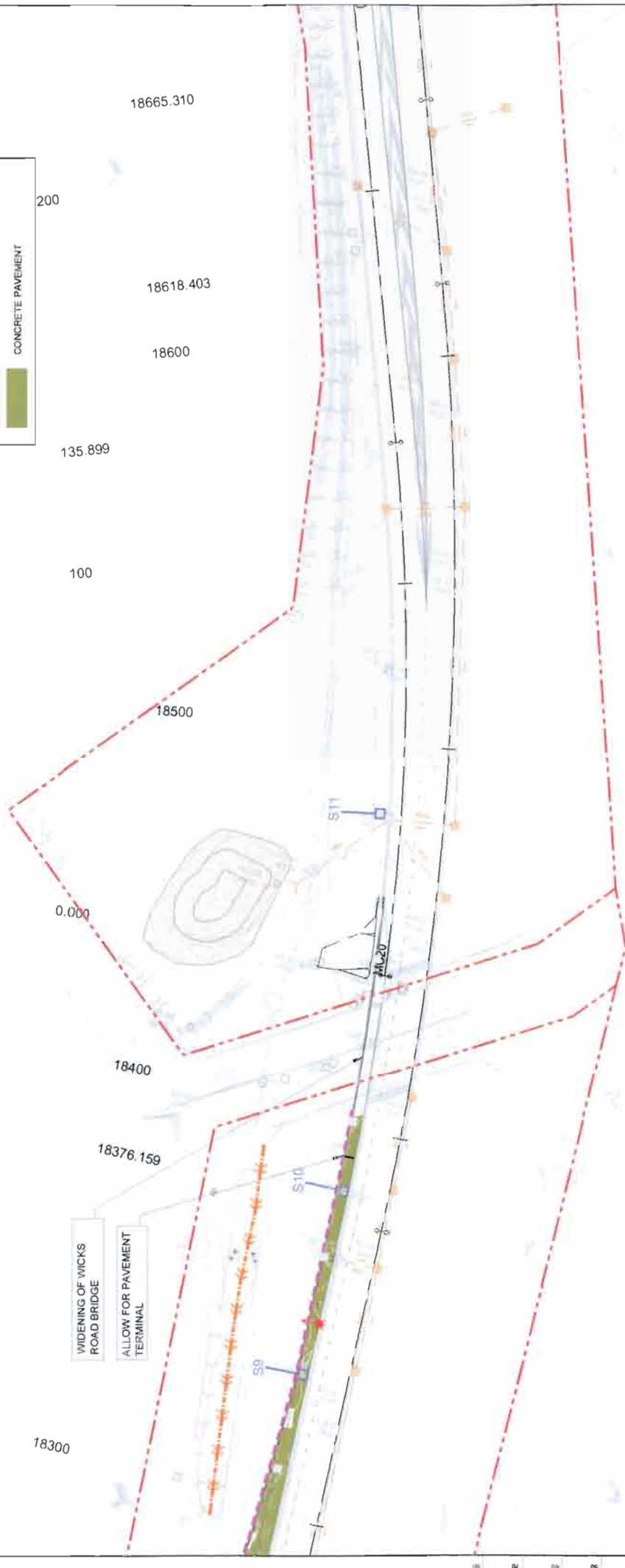
APPROVED FOR CONSTRUCTION:

APPROVED FOR TENDER DESIGN:



LEGEND	
	M2 LEASED BOUNDARY
	ROAD CONTROL LINE
	CADASTRAL
	PROPOSED SAFETY BARRIER (S4)
	NEW RETAINING WALL
	EXISTING SIGNS
	EXISTING LIGHTING (REMAINS)
	EXISTING LIGHTING (REMOVED)
	NEW LIGHTING
	ASPHALT OVERLAY TO MATCH EXISTING
	FLEXIBLE PAVEMENT
	CONCRETE PAVEMENT

WICKS ROAD



**NOT FOR CONSTRUCTION**

PROJECT NUMBER	60267595-DRG-10-0000-RD1003
REVISION	01
MOTORWAY NAME	M2 LANE COVE ROAD
CITY OF RYCE	
ROADS ALIGNMENT	
PLANS - SHEET 3	
DATE	18/07/20
TENDER DESIGN	

**Fulton Hogan**  
**AECOM**



DESIGNER'S SITE NOTE	DATE: 18/07/20
DATE: 18/07/20	

DATE: 18/07/20	

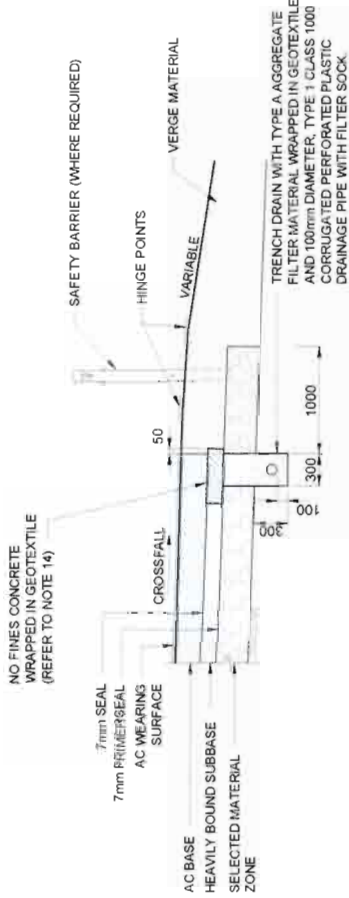
DATE: 18/07/20	

DATE: 18/07/20	

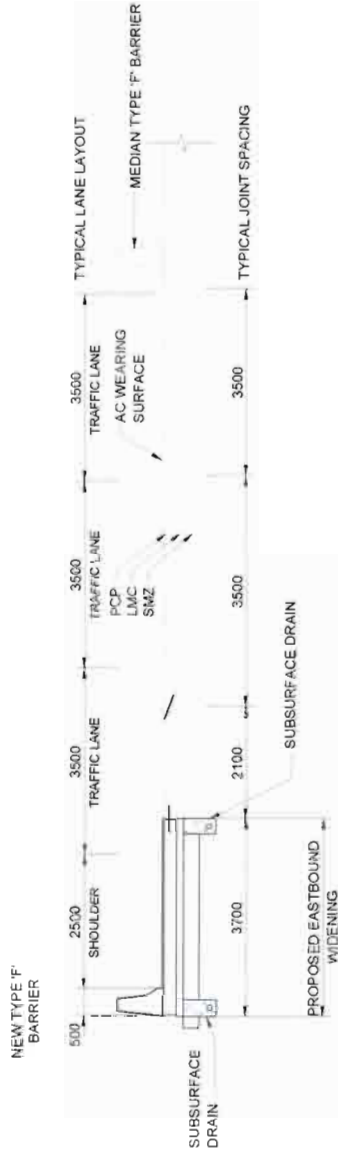
- 30m DGA OG10 (A1SE PMB)  
QUICK DRYING PRIME
- 45mm DGA AC14 (A1SE PMB)
- 175mm DGA AC20 (AR450)
- 7mm PRIMERSEAL
- 180mm HEAVILY BOUND  
SUBBASE  
E=800GMPa
- 7mm PRIMERSEAL
- 300mm  
SELECTED MATERIAL ZONE  
CBR ≥30%  
(PLACE IN 2x150mm LAYERS)
- 300mm  
SELECTED MATERIAL ZONE  
CBR ≥30%  
(PLACE IN 2x150mm LAYERS)
- DESIGN SUBGRADE CBR > 3%

**PAVEMENT TYPE 1**  
(4 LANE COVE ROAD ON RAMP)

**PAVEMENT TYPE A-2**  
(MAIN CARRIAGEWAY WIDENING)



**SUBSURFACE DRAIN UNDER LOW SIDE PAVEMENT  
EDGE WITH SLIP FORMED TYPE 'F' BARRIER**  
SCALE 1:50



**PROPOSED PAVEMENT LAYOUT  
WITH TYPE 'F' BARRIER**  
SCALE 1:100

<b>NOT FOR CONSTRUCTION</b>	
PROJECT ID: 60267595-DRG-10-0000-PV0501	REVISION: 01
PROJECT NAME: M2 LANE COVE ROAD	CITY/STATE: CITY OF RYDE
PROJECT NO: M2 LANE COVE ROAD	
TYPICAL DETAILS	
DATE: 18/08/2012	SCALE: 1:100
DRAWN BY: [Name]	CHECKED BY: [Name]
DATE: 18/08/2012	SCALE: 1:100
TENDER DESIGN	
TENDER NO: 1683	



DATE: 18/08/2012	SCALE: 1:100
DRAWN BY: [Name]	CHECKED BY: [Name]

DATE: 18/08/2012	SCALE: 1:100
DRAWN BY: [Name]	CHECKED BY: [Name]

DATE: 18/08/2012	SCALE: 1:100
DRAWN BY: [Name]	CHECKED BY: [Name]

DATE: 18/08/2012	SCALE: 1:100
DRAWN BY: [Name]	CHECKED BY: [Name]

DATE: 18/08/2012	SCALE: 1:100
DRAWN BY: [Name]	CHECKED BY: [Name]



Appendix J - Appendix 13 to Exhibit A to the Upgrade Project Deed

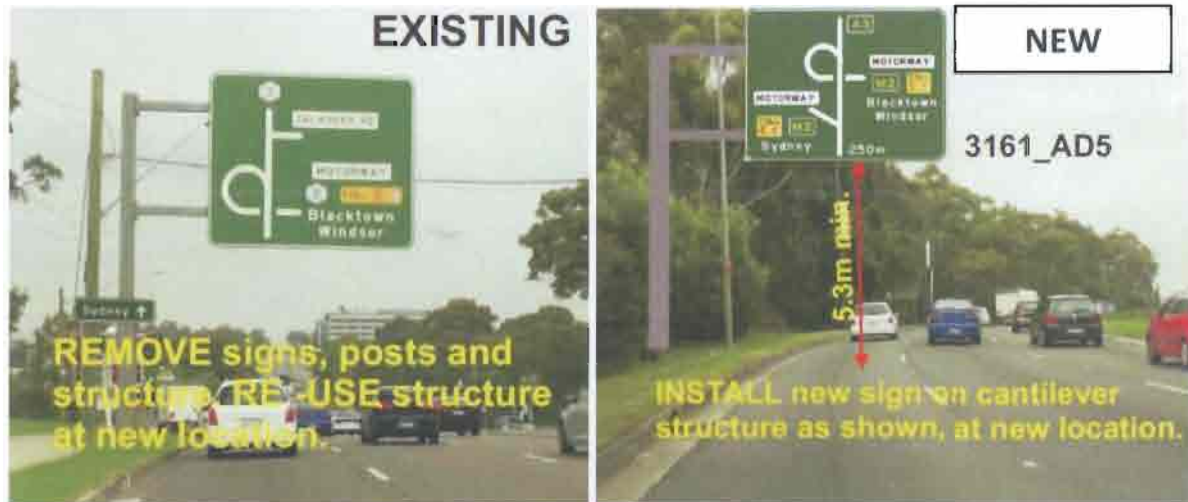
**Appendix 13 Signposting Requirements**

## M2U On-Ramp Amending Deed – Appendix 13 Signposting Requirements

The following Signposting Schedule outlines the signage modifications required to major directional and toll signage for the LCR On-ramp works (refer Appendix 30 drawings for location of respective signs):

### Lane Cove Road Southbound

- S1 – Relocation and new sign face indicating new ramp to approx 60m north of Riverside Dr.



- S2 – Remove sign and replace at the intersection of Riverside Dr. and Lane Cove Road.



- S11 – Remove and replace sign at approx 250m north of Riverside Dr.



- S12 – install new sign structure and sign face.



- S13 – install new sign structure and sign face.



## M2 Mainline

- S3 – relocate existing sign and remove To EPPING RD coverplate.



- S4 – delete NO CASH BOOTHS sign.



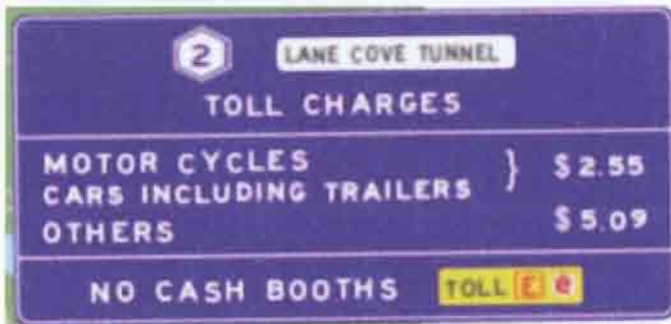
- S5 – relocate existing LCT OVERHEIGHT sign and structure.



- S6 – relocate existing sign utilising existing structure with a new NO DANGEROUS GOODS signface.



- S7 – relocate existing sign and structure.



- S8 – relocate existing VMS and structure.



- S9 – relocate existing sign and structure.



- S10 – relocate existing sign and structure, and remove supplementary plate.



**Appendix K - Appendix 16 to Exhibit A to the Upgrade Project Deed**  
**Appendix 16 Typical Cross Sections**





Appendix L - Table 28.5 of Appendix 20 to Exhibit A to the Upgrade Project Deed

**Table 28.5: Additional Requirements for Lane Cove Road**

**Table 28.5: Additional Requirements for Lane Cove Road**

SECTION	NORTHBOUND			SOUTHBOUND			OTHER REQUIREMENTS
	Footway	Left Most Lane Kerb	Median Kerb	Median Kerb	Left Most Lane Kerb	Footway	
Fontenoy Road to M2 eastbound on ramp	Existing	Existing	Existing	Existing	SA	2m wide verge (min)	<ul style="list-style-type: none"> <li>Pedestrian access shall be restricted along the eastern footway between Fontenoy Road and Talavera Road. Pedestrians to be directed by appropriate signage to use the existing pedestrian facilities along the western footway.</li> </ul>
M2 eastbound on ramp to Lane Cove Road Bridge	Existing	Existing	Existing	Existing	SA	2m wide verge (min)	<ul style="list-style-type: none"> <li>No pedestrian access permitted along the eastern footway.</li> </ul>

**Appendix M - Appendix 30A to Exhibit A to the Upgrade Project Deed**

**Appendix 30A On-Ramp Concept Design**





400

18000

500

524.060

18100

18081.564

18200

18161.564

RMS BACKBONE ALONG  
ENTIRE LENGTH OF  
RAMP / WIDENING



WEAVING IN THIS SECTION  
TO BE ASSESSED IN DETAIL  
DURING CONCEPT DEVELOPMENT

**LEGEND**

- M2 LEASED BOUNDARY
- ROAD CONTROL LINE
- CADASTRAL
- PROPOSED SAFETY BARRIER (GA)
- NEW RETAINING WALL
- EXISTING SIGNS
- EXISTING LIGHTINGS (REMAINS)
- EXISTING LIGHTINGS (REMOVED)
- NEW LIGHTING
- ASPHALT OVERLAY TO MATCH EXISTING
- FLEXIBLE PAVEMENT
- CONCRETE PAVEMENT

**NOT FOR CONSTRUCTION**

PROJECT ID / DRAWING NO.	60267595-DRG-10-0000-RD1002	PROJECT NO.	01
M2 UPRAMP / W/ NC	M2 LANE COVE ROAD	CITY OF PT/EE	
M2 LANE COVE ROAD ROADS ALIGNMENT			
PLANS - SHEET 2			
DATE OF ISSUE	19/06/2024	SHEET NO.	156
TENDER DESIGN			

CONTRACTOR

DESIGNER



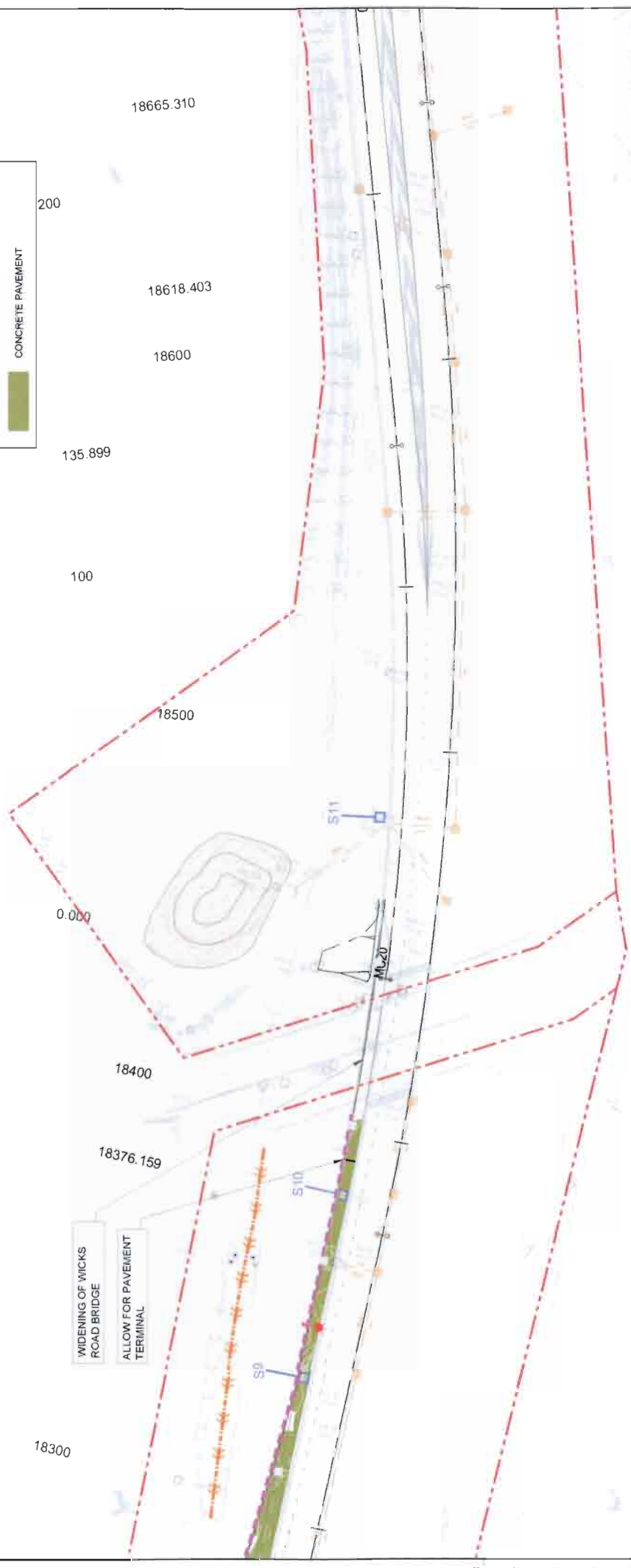
DESIGN MODEL TO BE USED FOR DOCUMENTATION AND TENDERS  
SCALE AS SHOWN  
DATE OF ISSUE

NO.	DATE	REVISION	BY	APP. BY
01	20/06/2024	ISSUED FOR TENDER DESIGN		

PROJECT LOCATION NAME	M2 UPRAMP / W/ NC
CAD FILE #	60267595_M2 Lane Cove RMS_CADD06.3_Visiting@dwg
PROJECT NO.	60267595-DRG-10-0000-RD1002
PROJECT NAME	M2 LANE COVE ROAD
PROJECT ADDRESS	
PROJECT CONTACT	
PROJECT PHONE	
PROJECT FAX	
PROJECT EMAIL	
PROJECT WEBSITE	
PROJECT URL	
PROJECT SOCIAL MEDIA	
PROJECT OTHER	

**LEGEND**

	M2 LEASED BOUNDARY
	ROAD CONTROL LINE
	CADASTRAL
	PROPOSED SAFETY BARRIER (C4)
	NEW RETAINING WALL
	EXISTING SIGNS
	EXISTING LIGHTING (REMAINS)
	EXISTING LIGHTING (REMOVED)
	NEW LIGHTING
	ASPHALT OVERLAY TO MATCH EXISTING
	FLEXIBLE PAVEMENT
	CONCRETE PAVEMENT



WICKS ROAD

WIDENING OF WICKS ROAD BRIDGE  
ALLOW FOR PAVEMENT TERMINAL

**NOT FOR CONSTRUCTION**

PROJECT NUMBER	60267595-DRG-10-0000-RD1003	01
MOTORWAY No. 102	M2 LANE COVE ROAD	CITY OF RYCE
ROAD NAME	M2 LANE COVE ROAD	
ROAD ALIGNMENT	ROADS ALIGNMENT	
PLANS - SHEET 3		

CONTRACTOR

ENGINEER

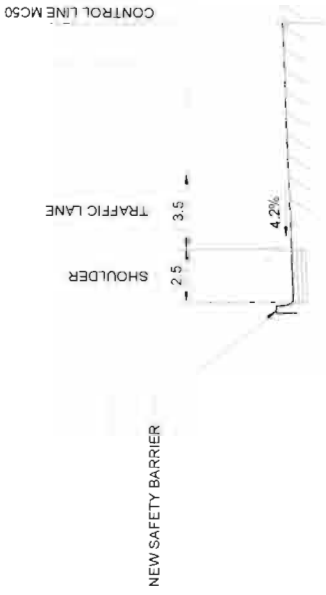


DATE	19/08/2018
SCALE	1:1000
PROJECT	M2 LANE COVE ROAD

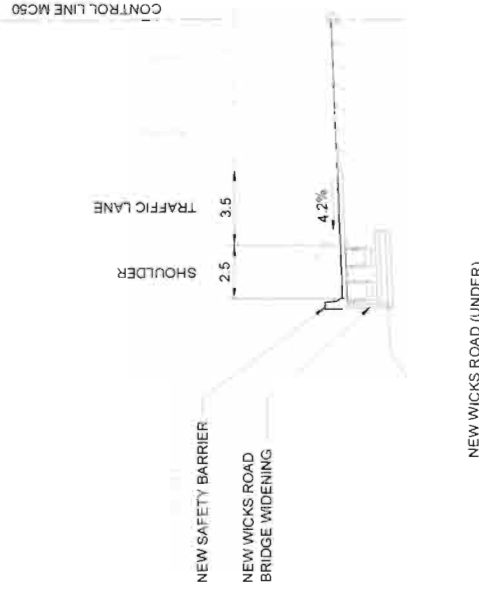
NO.	DATE	BY	DESCRIPTION
01	20/08/2018		ISSUED FOR TENDER DESIGN

NO.	DATE	BY	DESCRIPTION
01	20/08/2018		ISSUED FOR TENDER DESIGN

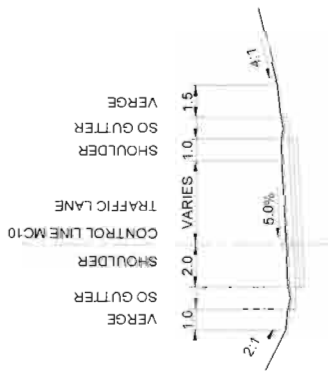
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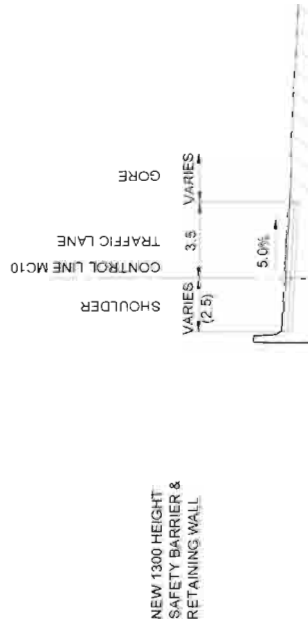
TYPICAL SECTION AT STN 18380  
SCALE 1:250



TYPICAL SECTION AT WICKS ROAD BRIDGE STN 18420  
SCALE 1:250



TYPICAL SECTION AT STN 140  
SCALE 1:250



TYPICAL SECTION AT STN 400  
SCALE 1:250

**NOT FOR CONSTRUCTION**

PROJECT NUMBER	60267595-DRG-10-0000-RD0501	01
MOTORWAY No	M2	CITY OF PYRRE
ROAD NAME	M2 LANE COVE ROAD	
ROAD ALIGNMENT	M2 LANE COVE ROAD	
TYPICAL CROSS SECTIONS		
DESIGNER	FULTON HOGAN	
ENGINEER	AECOM	
DATE	198	

DESIGNER'S SITE NOTE

DATE: 198

SCALE: 1:250

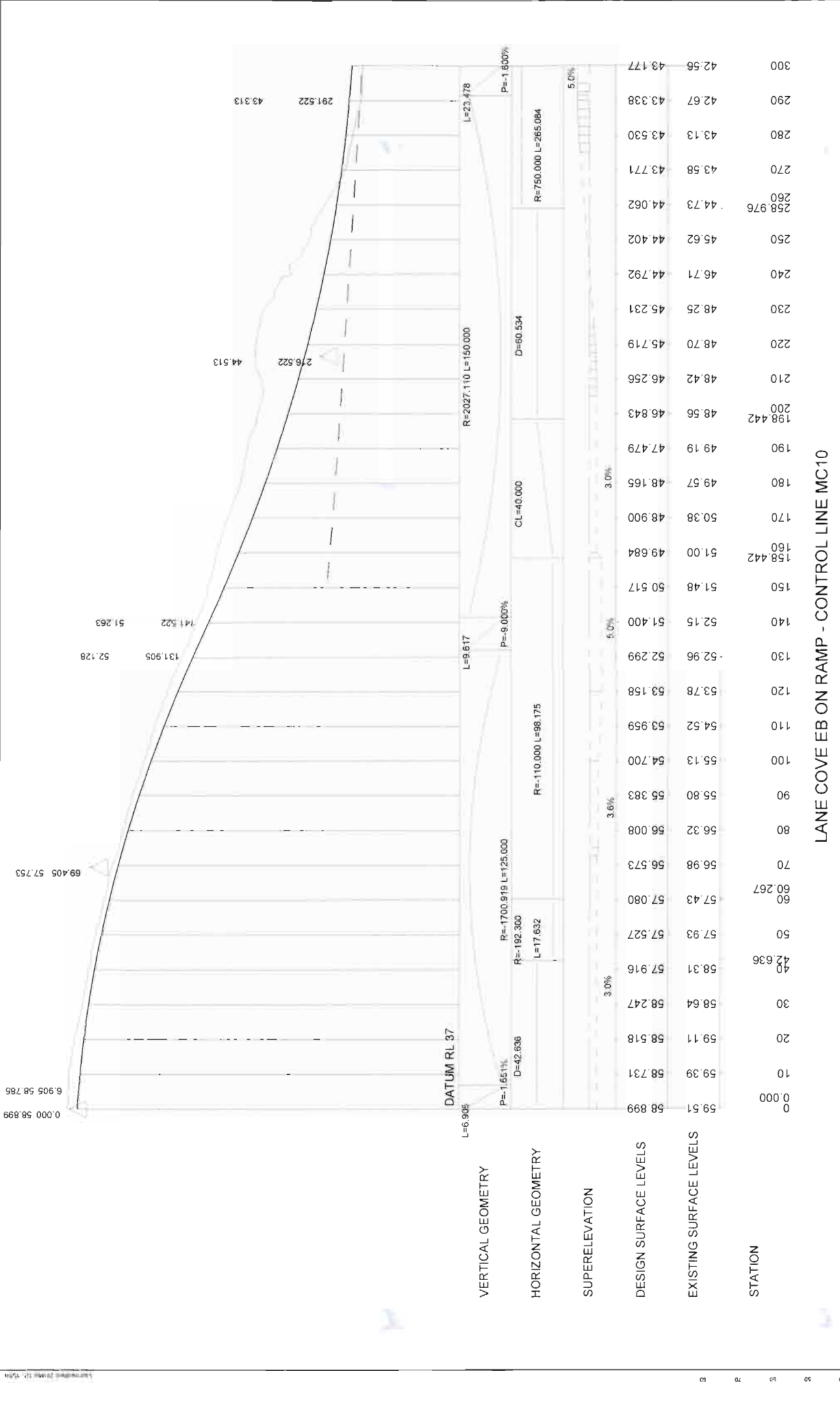
PROJECT: M2 LANE COVE ROAD

CONTRACTOR: FULTON HOGAN

ENGINEER: AECOM

REVISION	NO.	DATE	DESCRIPTION
	1	198	ISSUED FOR TENDER

PROJECT NAME	M2 LANE COVE ROAD
PROJECT NO.	60267595-DRG-10-0000-RD0501
PROJECT DATE	198
PROJECT LOCATION	M2 LANE COVE ROAD
PROJECT STATUS	ISSUED FOR TENDER
PROJECT OWNER	CITY OF PYRRE
PROJECT MANAGER	
PROJECT ENGINEER	
PROJECT DESIGNER	FULTON HOGAN
PROJECT ENGINEER	AECOM



**LANE COVE EB ON RAMP - CONTROL LINE MC10**

**NOT FOR CONSTRUCTION**

PROJECT NUMBER <b>60267595-DRG-10-0000-RD3001</b>	SHEET NUMBER <b>01</b>	CITY OF PLYMOUTH <b>M2 LANE COVE ROAD ROADS ALIGNMENT</b>
LONG SECTIONS - SHEET 1		
TENDER DESIGN		

DESIGNER: **Fulton Hogan**

ENGINEER: **AECOM**

SCALE: AS SHOWN

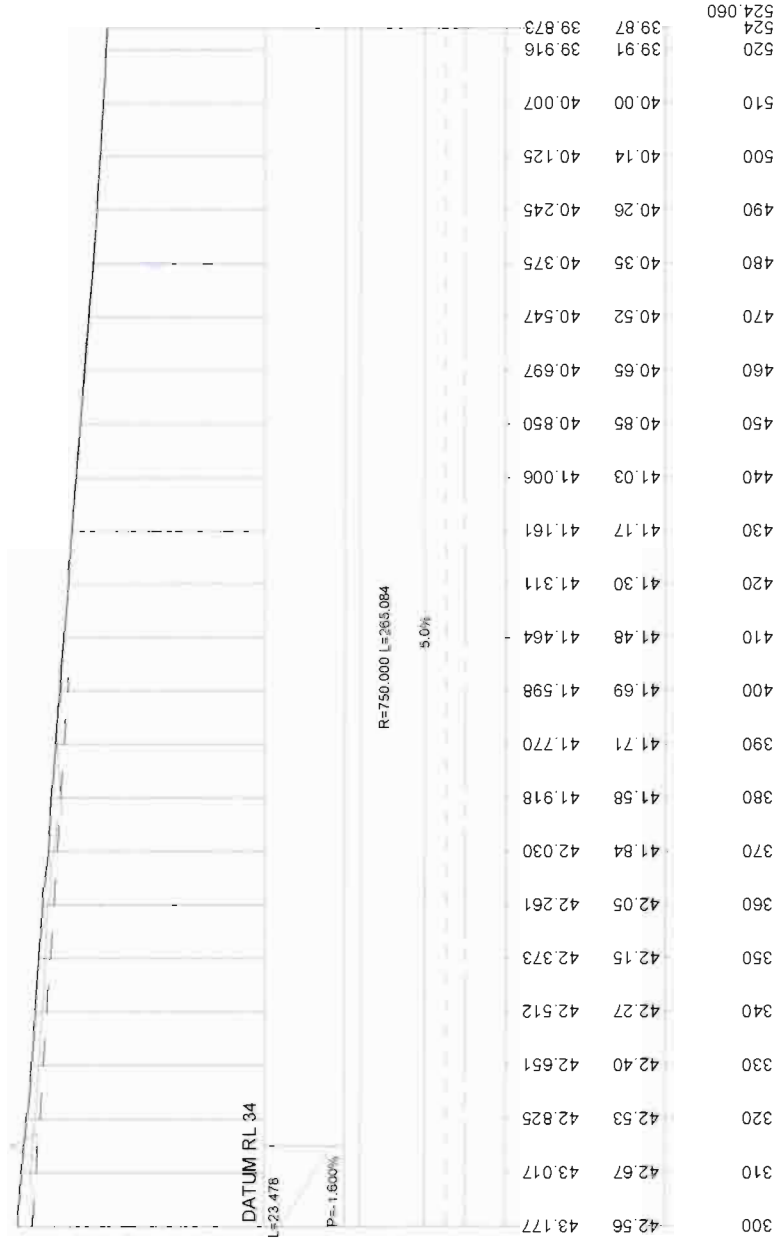
VERTICAL: 1" = 20'

HORIZONTAL: 1" = 100'

DESIGNER'S SITE NOTE: THIS DRAWING IS FOR INFORMATION ONLY AND IS NOT TO BE USED FOR CONSTRUCTION. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.



42.937  
315.000



LANE COVE EBON RAMP - CONTROL LINE MC10

NOT FOR CONSTRUCTION

PROJECT NUMBER	60267595-DRG-10-0000-RD3002
PROJECT NAME	M2 LANE COVE ROAD
PROJECT LOCATION	M2 LANE COVE ROAD ROADS ALIGNMENT
PROJECT DATE	2009
PROJECT SCALE	TENDER DESIGN

DESIGNER'S SITE NOTE

DATE: 10/20/2010

SCALE: 1"=100'

VERTICAL SCALE: 1"=10'

HORIZONTAL SCALE: 1"=100'

CONTRACTOR: Fuiton Hogan, AECOM

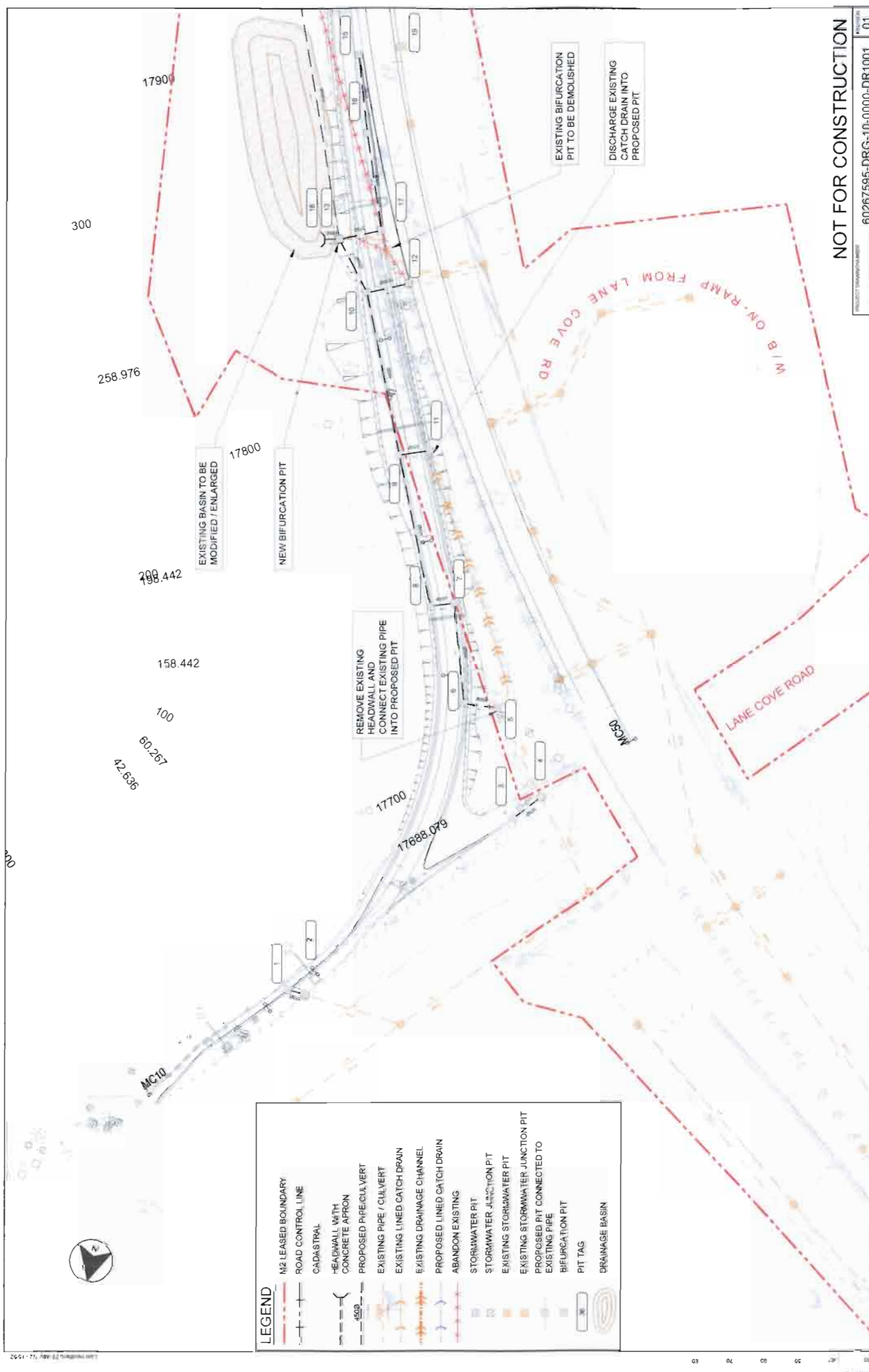
PROJECT: M2 LANE COVE ROAD

DATE: 10/20/2010

SCALE: 1"=100'

VERTICAL SCALE: 1"=10'

HORIZONTAL SCALE: 1"=100'



**LEGEND**

	M2 LEASED BOUNDARY
	ROAD CONTROL LINE
	CADASTRAL
	HEADWALL WITH CONCRETE APRON
	PROPOSED PIPE/CULVERT
	EXISTING PIPE / CULVERT
	EXISTING LINED CATCH DRAIN
	EXISTING DRAINAGE CHANNEL
	PROPOSED LINED CATCH DRAIN
	ABANDON EXISTING
	STORMWATER PIT
	STORMWATER JUNCTION PIT
	EXISTING STORMWATER PIT
	EXISTING STORMWATER JUNCTION PIT
	PROPOSED PIT CONNECTED TO EXISTING PIPE
	BIFURCATION PIT
	PIT TAG
	DRAINAGE BASIN

**NOT FOR CONSTRUCTION**

PROJECT NUMBER: 60267595-DRG-10-0000-DR1001\_01

MOTORWAY No. 88 MELBANE COVE ROAD CITY OF RYDE

M2 LANE COVE ROAD DRAINAGE

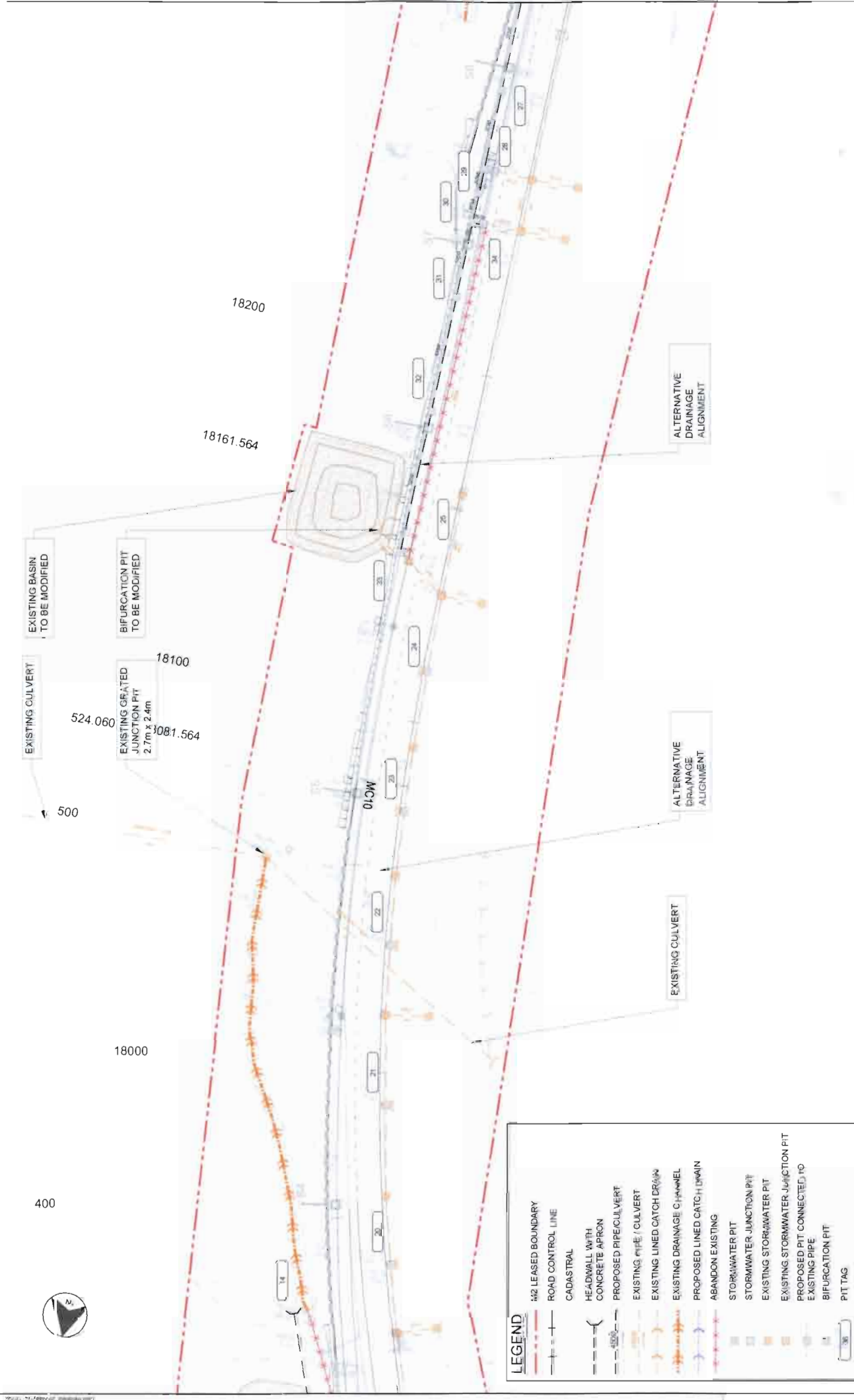
PLANS - SHEET 1

Scale: 20:1



DESIGNER'S SITE NOTE

NO.	DATE	DESCRIPTION
1	10/08/2010	ISSUED FOR TENDER DESIGN



**LEGEND**

	H&Z LEASED BOUNDARY
	ROAD CONTROL LINE
	CADASTRAL
	HEADWALL WITH CONCRETE APRON
	PROPOSED PIPE/CULVERT
	EXISTING PIPE / CULVERT
	EXISTING LINED CATCH DRAIN
	EXISTING DRAINAGE CHANNEL
	PROPOSED LINED CATCH DRAIN
	ABANDON EXISTING
	STORMWATER PIT
	STORMWATER JUNCTION PIT
	EXISTING STORMWATER PIT
	EXISTING STORMWATER JUNCTION PIT
	PROPOSED PIT CONNECTED TO EXISTING PIPE
	BIFURCATION PIT
	PIT TAG
	DRAINAGE BASIN

**NOT FOR CONSTRUCTION**

PROJECT NUMBER: 60267595-DRG-10-0000-DR1002 | 01  
 PROJECT NAME: M2 LANE COVE ROAD DRAINAGE  
 CITY OF SYDNEY  
 DRAWING TITLE: PLANS - SHEET 2  
 DATE: 2021



REVISIONS

NO.	DATE	DESCRIPTION

PROJECT INFORMATION

PROJECT NO.	60267595-DRG-10-0000-DR1002
PROJECT NAME	M2 LANE COVE ROAD DRAINAGE
CITY OF SYDNEY	

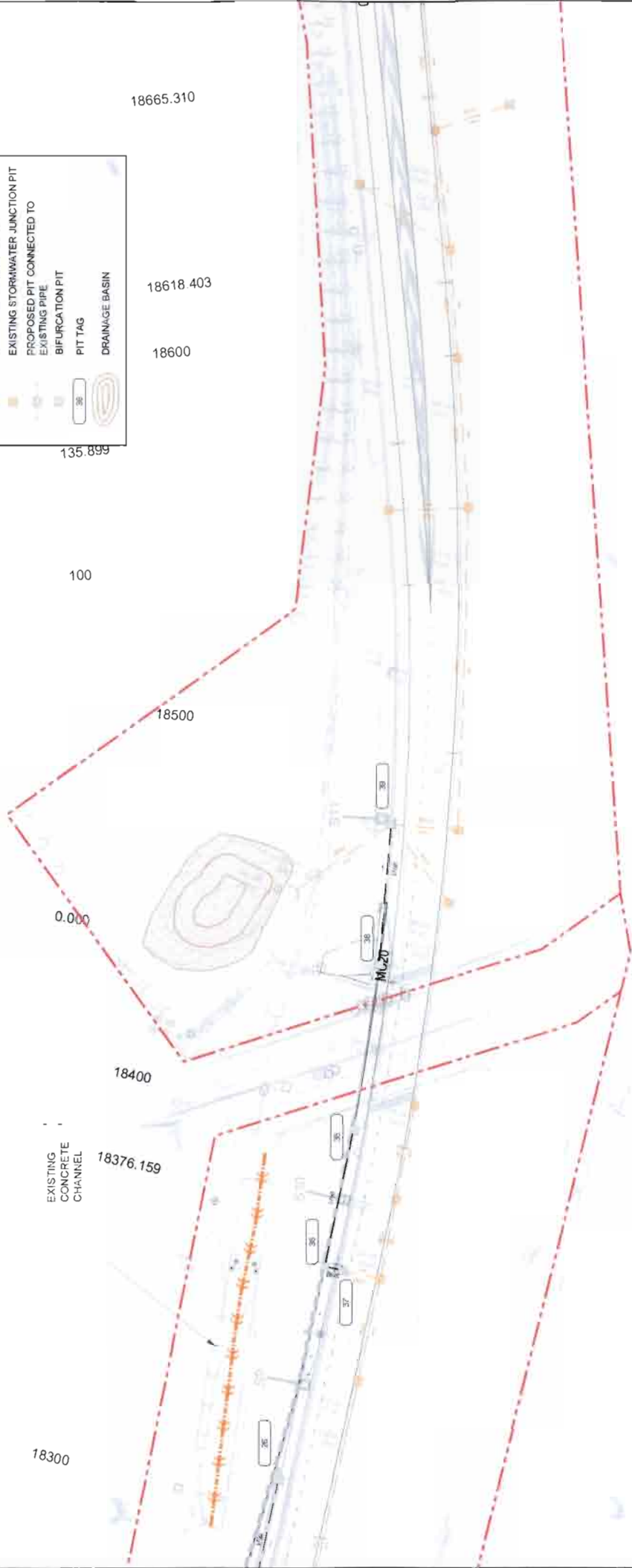
DESIGNER INFORMATION

DESIGNER	Futon Hogan
CLIENT	CITY OF SYDNEY
DATE	2021



LEGEND	
	M2 LEASED BOUNDARY
	ROAD CONTROL LINE
	CADASTRAL
	HEADWALL WITH CONCRETE APRON
	PROPOSED PIPE/CULVERT
	EXISTING PIPE / CULVERT
	EXISTING LINED CATCH DRAIN
	EXISTING DRAINAGE CHANNEL
	PROPOSED LINED CATCH DRAIN
	ABANDON EXISTING
	STORMWATER PIT
	STORMWATER JUNCTION PIT
	EXISTING STORMWATER PIT
	EXISTING STORMWATER JUNCTION PIT
	PROPOSED PIT CONNECTED TO EXISTING PIPE
	BIFURCATION PIT
	PIT TAG
	DRAINAGE BASIN

WICKS ROAD



**NOT FOR CONSTRUCTION**

PROJECT NUMBER: 60267595-DRG-10-0000-DR1003 | 01  
 MOTORWAY No. 602 M2 LANE COVER ROAD CITY OF RYCE  
 M2 LANE COVER ROAD DRAINAGE  
 PLANS - SHEET 3

DATE: 20/09/2012  
 DRAWN BY: [Name]  
 CHECKED BY: [Name]  
 PROJECT NO: 60267595-DRG-10-0000-DR1003  
 SHEET NO: 203



DESIGNER'S SITE NOTE

DATE: 20/09/2012

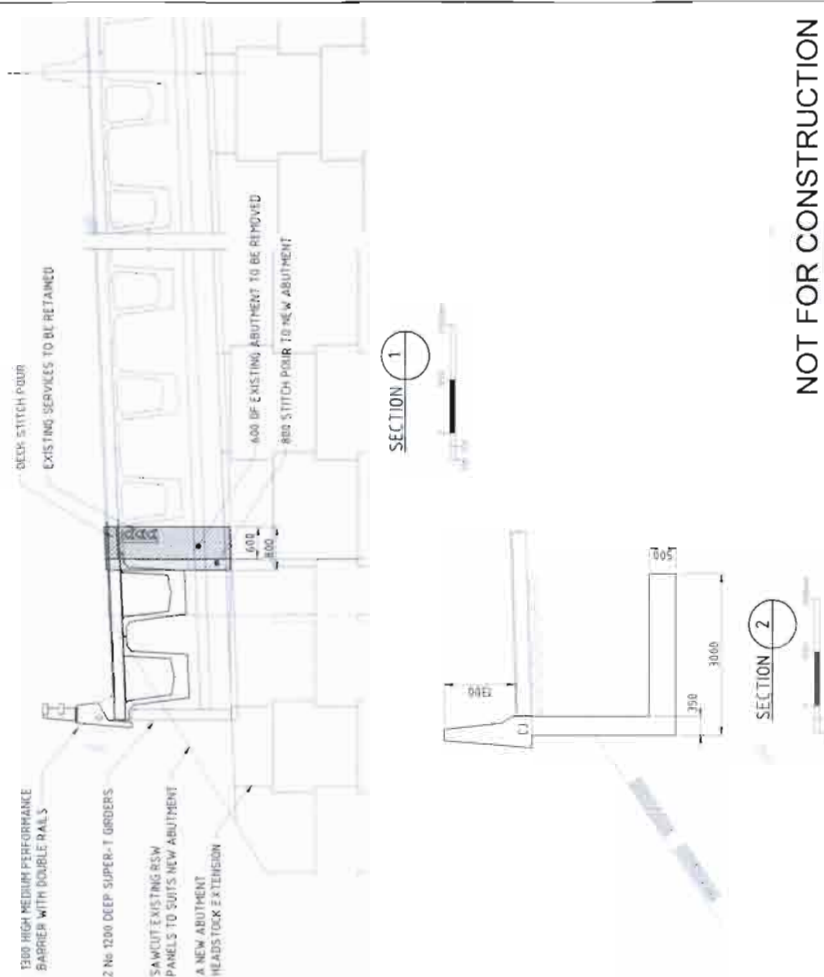
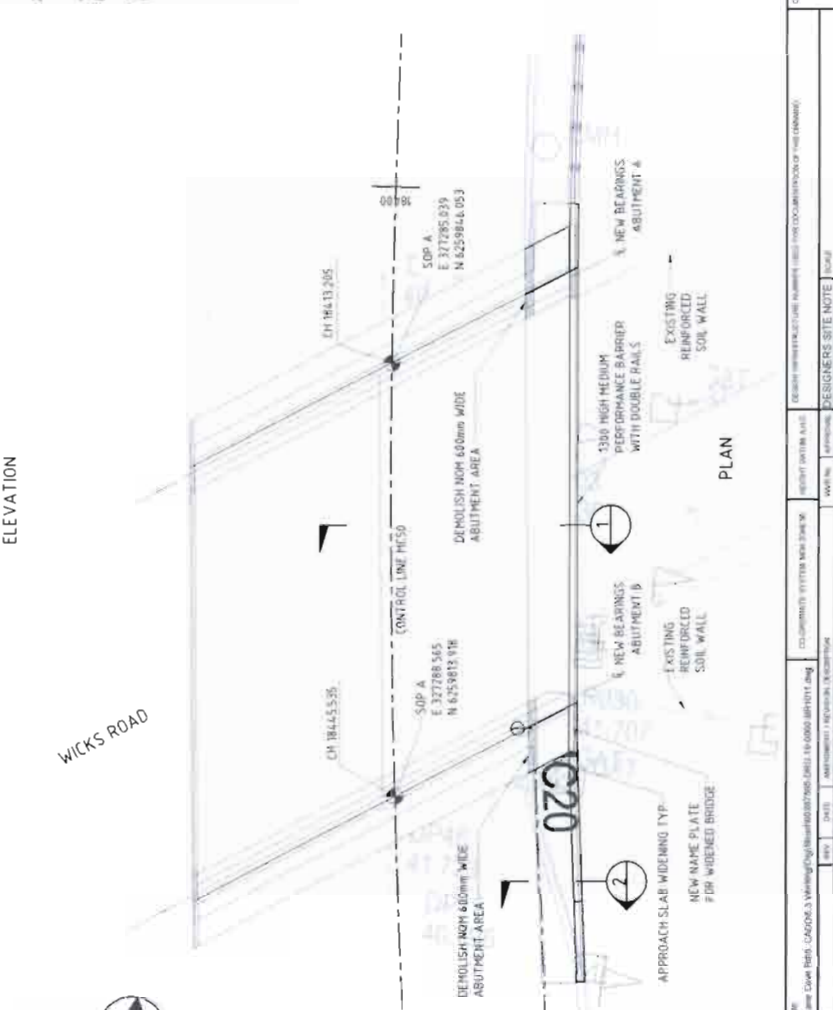
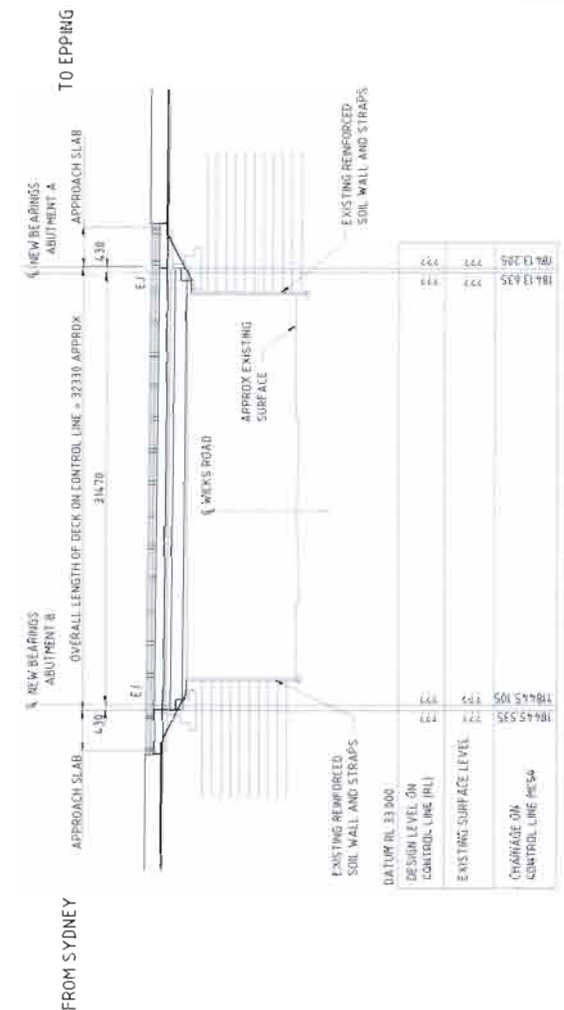
NO.	DATE	BY	REVISION
01	20/09/2012	[Name]	ISSUED FOR TENDER (RIBA)

**GENERAL NOTES**  
 DIMENSIONS ARE IN MILLIMETRES  
 CHANGES, COORDINATES, AND REDUCED LEVELS ARE IN METRES  
 REDUCED LEVELS ARE RELATED TO THE AUSTRALIAN HEIGHT DATUM  
 CO-ORDINATES ARE TO MGA (MAP GRID OF AUSTRALIA)  
 ELEMENTS WITHIN 3m OF FINISHED GROUND LEVEL SHALL BE COATED WITH ANTI-CORROSION COATING TO URBAN DESIGN REQUIREMENTS

**CONSTRUCTION SEQUENCE**  
 THE WORKS MUST BE EXECUTED IN ACCORDANCE WITH THE INITIAL SURVEY, CONSTRUCTION SEQUENCE, MONITORING AND MAINTENANCE PLAN SHOWN ON DRAWINGS P2U-DRG-40-3000-BR1886 TO 3199

**VERTICAL ALIGNMENT**  
 THE VERTICAL ALIGNMENT IS INTERPOLATED FROM THE EXISTING BRIDGE REFER TO EXISTING BRIDGE AS-BUILT GENERAL ARRANGEMENT DRG No 02-BR-WI-001

**LEGEND**  
 DENOTES EXTENT OF BRIDGE MODIFICATIONS



**NOT FOR CONSTRUCTION**  
 PROJECT NUMBER: 60267595-DRG-10-0000-BR1011\_01  
 CITY OF RYDE  
 M2 LANE COVE ROAD BRIDGE  
 GENERAL ARRANGEMENT  
 TENDER DESIGN

PROJECT: 60267595-DRG-10-0000-BR1011\_01  
 CITY OF RYDE  
 M2 LANE COVE ROAD BRIDGE  
 GENERAL ARRANGEMENT  
 TENDER DESIGN

DESIGNER: **Fulton Hogan**

ENGINEER: **AECOM**

DATE: 01/11/2012	BY: [Signature]	CHECKED: [Signature]
DESIGNER: [Signature]	APPROVED: [Signature]	DESIGNER'S SITE NOTE: [Signature]
DATE: 01/11/2012	BY: [Signature]	CHECKED: [Signature]
DESIGNER: [Signature]	APPROVED: [Signature]	DESIGNER'S SITE NOTE: [Signature]





**Appendix N - Appendix 31 to Exhibit A to the Upgrade Project Deed**

**Appendix 31 Company's Urban and Landscape Design**



## Objectives and Principles

The seven key urban design objectives identified in the M2 Upgrade Project Urban Design and Landscape Management Plan have also been adopted for the proposal. They are:

1. Works are to improve the visual appearance and character of the road corridor and create a recognisable identity for the M2 Motorway.
  - Design finishes of new retaining walls would be consistent with the existing palettes of finishes where wall has significant visual impact.
  - Bridge design would be consistent with the current structural elements of the motorway.
2. Motorway elements are to complement the surrounding setting.
  - Design solutions address the character of the existing motorway built elements and provide solutions which complement and improve the visual outcome of the motorway built form.
3. Maintain a safe and accessible corridor.
  - All works associated with the proposal would be carefully designed in regards to urban design, traffic safety, context and consistency.
  - Pedestrian and cyclist access would be maintained and vehicular access would be improved as an outcome of the modification.
4. Improve connectivity.
  - Whilst the proposal would remove pedestrian access along the eastern side of Lane Cove Road, it would formalise facilities on the western side of Lane Cove Road, providing safer facilities for pedestrians.
  - The proposal would not alter the current cyclist facilities along Lane Cove Road.
  - The proposal provides an additional vehicular access point to the Sydney Orbital road network.
5. Revegetation strategies need to relate to scale, composition and colour of the adjacent built form.
  - Landscape implementation would be refined to enhance constructability issues while achieving an enhanced landscape response and reduced weed development.
  - Landscape areas in front of retaining walls adjoining traffic lanes would be minimised. This reflects the difficulty in maintenance, the need for lane closures to achieve this, and provision of higher quality design retaining walls.
6. Protect and enhance the natural systems and ecology of the corridor.
  - Natural vegetation communities would inform the revegetation works.
  - Landscape works would reflect their adjoining associations and so enhance the communities to which they abut.
  - Weed infestations would be managed in accordance with weed management strategies.
7. Maintenance of hard and soft landscape elements must be accessible and maintainable with minimal resources.

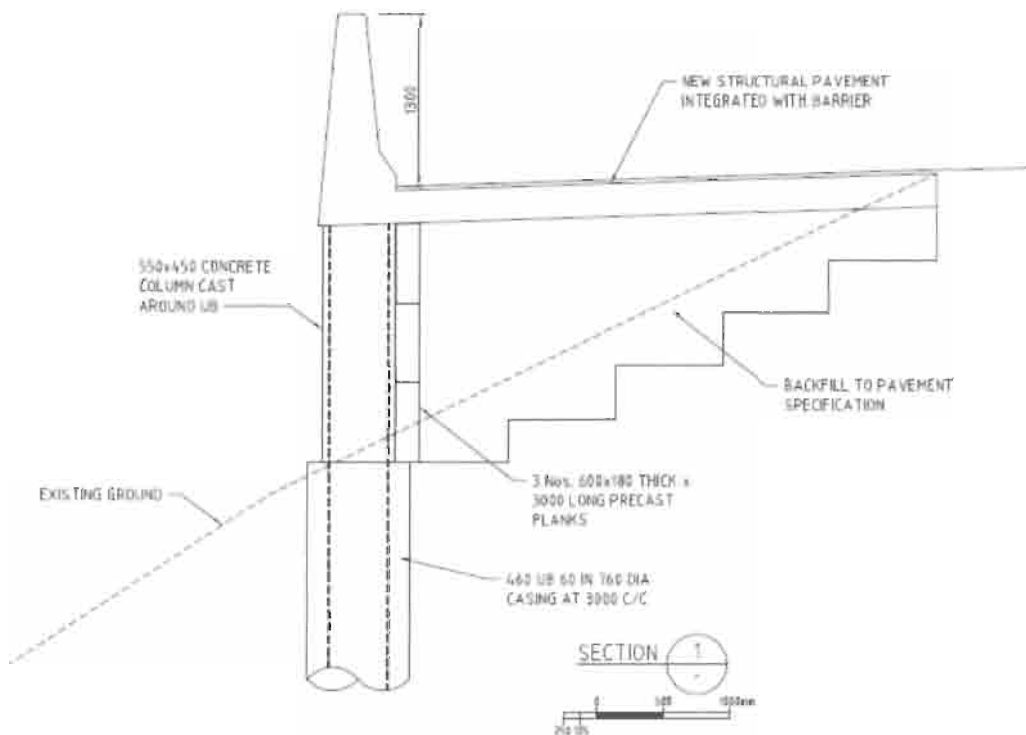
- Provision of landscape has been refined so that its use is deliberate and provides context for the built elements.
- The aesthetic qualities of the bridge and retaining walls would be enhanced to improve the visual outcome of the corridor.

## Urban Design Treatments

Urban Design Treatments for the On-ramp works are as follows:

### Retaining Walls

- There are two retaining walls proposed under the works:
  - The first runs along Lane Cove Rd in front of Eden Gardens. It will be a concrete block filled wall approx. 600mm high, so will not be of significant visual impact.
  - The second wall is a piled wall with precast concrete plank members retaining the earth. This wall is of greater visual impact at approx. 1.8m high, currently visible only to the Ryde Council Depot, the Tip, and from Wicks Rd. Vegetation will be positioned in front of the wall to minimise this visual impact, with Urban Designers to be consulted. Detail provided as follows from Appendix 30.



## Wicks Road Bridge

- Bridge Elevation and Span to match existing.
- Depth of bridge girders to match existing.
- Existing Retained Earth Wall adjusted at top to accommodate new bridge girders on the eastbound side.
- RE Walls to be strengthened with Soil Nails and Anchor Plates with covers the same appearance as installed at Khartoum Rd Bridge.



## Landscaping

Urban Design and Landscaping design should build upon the existing assets and alignment, and fortify the connection with the natural environment through strengthening the vegetated backdrop of the alignment, where new works occur. To achieve this, the following Landscaping Strategies will be adopted:

- Walls are to be close coupled to the road alignment eliminating narrow, difficult to establish, garden bed zones. Where unable to be avoided landscape garden beds are to be established or rehabilitated, with care taken to ensure adequate preparation.
- Landscape implementation generally will adopt a revegetation technique which is both efficient in terms of construction methodology but also effective in terms of landscape outcomes. This will include the following strategies:
  - Where access is limited ecoblanket is to be used to maximize seed take and reduce potential for weed outbreak.
  - Where area adjoins a zone of heavy weed infestation ecoblanket is to be used.
  - Where area adjoins good quality remnant vegetation and construction impacts are limited, such as at the base of a retaining wall, area is to be cultivated and hydroseeded so that maximum natural regeneration can occur with minimal assistance other than environmental controls.
- Planting of tree species is to be adopted to ensure a long-term canopy is established, which forms the basis of the roads backdrop, and enhances the ability to control weed.
- Planting is generally to be adopted where visual issues are a concern, i.e. where walls have a high exposure. This strategy should ensure screening of potentially unsightly structures is reduced and a naturalistic outlook provided.

The following landscaping, including planting rates, will be provided for areas disturbed by the On-ramp works:

- Lane Cove Road interchange
  - Virotubes at 9 per m<sup>2</sup>
  - Shrubs at 2.5 litre @ 750 centres
- General Garden Beds
  - Virotubes at 9 per m<sup>2</sup>
  - Shrubs at 2.5 litre @ 750 centres
  - Trees at 25 litre and 4 litre at ratio 20:80 1 plant every 25m<sup>2</sup>
- All other areas to be treated as revegetation areas
  - Tree or shrub planting at 1 plant every 4m<sup>2</sup> as tube stock or 5 litre in ratio of 80:20.

Seeding and Planting types to be consistent with those provided for the M2 Upgrade, and suitability of community to each area to be advised by a suitably qualified Landscape Architect. These types as follows:

- Seeding Mixes are composed of:

Seed	Quantity	Role
Japanese Millet (Sep-Mar)	35 kgs/ha	
Rye Corn (Apr-Aug)	35 kgs/ha	
Eclipse/Crusader Rye	25 kgs/ha	Cover Crop
Red Clover	5 kgs/ha	
Microlaena stipoides "Griffin" pelleted seed	2 kgs/ha	
Themeda "Tangara" pelleted seed	1 kgs/ha	Native Grass
Native trees, shrubs & ground covers	5 kgs/ha	
Organic Fertilizer	250 kgs/ha	

- Planting – Key Species for Vegetation Communities
  - Sandstone Ridge Top Community

Sandstone Ridge Top Community	
<i>Angophora costata</i>	Smooth-barked Apple
<i>Eucalyptus haemastoma</i>	Scribbly Gum
<i>Eucalyptus gummifera</i>	Red Bloodwood
<i>Eucalyptus oblonga</i>	Narrow-leaved Stringybark
<i>Eucalyptus piperita</i>	Sydney Peppermint
<i>Allocasuarina littoralis</i>	Black She-oak
<i>Banksia integrifolia</i>	Coast Banksia
<i>Banksia serrata</i>	Old Man Banksia
<i>Hakea sericea</i>	
<i>Hakea teretifolia</i>	
<i>Kunzea ambigua</i>	Tick Bush
<i>Leptospermum attenuatum</i>	
<i>Leptospermum flavescens</i>	Swamp Teatree

○ Turpentine Iron Bark

<b>Turpentine Iron bark and Turpentine Iron Bark Margin Forest</b>	
<i>Eucalyptus globoidea</i>	White Stringybark
<i>Eucalyptus paniculata</i>	Grey Ironbark
<i>Eucalyptus resinifera</i>	Red Mahogany
<i>Syncarpia glomulifera</i>	Turpentine
<i>Acacia falcata</i>	
<i>Acacia floribunda</i>	Wattle
<i>Acacia implexa</i>	
<i>Acacia longifolia</i>	Wattle
<i>Banksia ericifolia</i>	Heath-leaved Banksia
<i>Hakea sericea</i>	
<i>Kunzea ambigua</i>	Tick Bush
<i>Leptospermum flavescens</i>	Swamp Teatree

○ Western Sandstone Gully Forest

<b>Western Sandstone Gully Forest</b>	
<i>Angophora costata</i>	Smooth-barked Apple
<i>Eucalyptus gummifera</i>	Red Bloodwood
<i>Eucalyptus pilularis</i>	Blackbutt
<i>Allocasuarina torulosa</i>	Forest Oak
<i>Acmena smithii</i>	
<i>Austromyrtus tenuifolia</i>	
<i>Backhousia Myrtifolia</i>	
<i>Callicoma serratifolia</i>	Black 'Wattle'
<i>Ceratopetalum apetalum</i>	Coachwood
<i>Ceratopetalum gummiferum</i>	Christmas Bush
<i>Dodonaea Triquetra</i>	
<i>Tristaniopsis laurina</i>	Water Gum

**Appendix O - Appendix 35 to Exhibit A to the Upgrade Project Deed**

**Appendix 35 Initial Project Management Plan**



## Initial Project Management Plan

**PROJECT: HILLS M2 LANE COVE ROAD RAMP**  
**CONTRACT No.: TBA**

**CONTROLLED COPY NO: e-copy**

### DISTRIBUTION LIST OF CONTROLLED COPIES

Copy No.	Issued to	
1	Fulton Hogan Construction	Project Manager
2	Hills Motorway - Client	Client's Representative
3	Roads & Maritime Services of NSW	RMS's Representative
4	SKM – Independent Verifier	Independent Verifier's Representative

Originated and Revised by: Salar Aga – Quality Manager (Eastern Construction)	Reviewed and authorised by: Arthur Vasilaras – Project Manager
_____ (Signature/Date)	_____ (Signature/Date)

Fulton Hogan Construction Pty Ltd (ABN 46 010 240 758), L3, 61 Dunning Avenue, Rosebery, NSW 2018

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## Acronyms

D&C	Design and Construct
CEMP	Construction Environmental Management Plan
CMS	Construction Method Statement
ERG	Environmental Review Group
EWMS	Environmental Work Method Statement
KPI	Key Performance Indicator
KRA	Key Review Area
IV	Independent Verifier
HM	Hills Motorway
MCOS	Minimum Condition of Satisfaction
MRG	Management Review Group
NCR	Non-Conformity Report
OEH	Office of Environment and Heritage
PCG	Project Control Group
PDG	Project Design Group
RFI	Request for Information
RMP	Risk Management Sub-Plan
RMS	Roads and Maritime Services
SPG	Senior Project Group
SWTC	Scope of Works and Technical Criteria
WHS	Work Health and Safety

## 1. Project Description

The M2 Lane Cove on Ramp Project is a Design and Construct (D&C) Project, which involves designing and constructing of a new eastbound on-ramp from Lane Cove Road to the M2 Motorway at Macquarie Park with motorway widening between the new ramp and the existing Delhi Road eastbound off-ramp for Hills Motorway (HM).

Key features of the project are:

- A new on-ramp from the southbound carriageway of Lane Cove Road to the eastbound carriageway of the M2 Motorway.
- Widening of the eastbound carriageway of the M2 Motorway by one additional lane for around 600 metres from the new on-ramp extending to the beginning of the existing eastbound Delhi Road off-ramp.
- Widening of the Wicks Road Bridge to facilitate the additional eastbound lane.
- A new toll point at the on-ramp.
- Additional traffic management systems (including an over-height detection system using existing Variable Message Signage and Closed Circuit Television (CCTV) coverage of the new on-ramp and alterations to the Intelligent Transport Systems.
- Finishing works including line marking, lighting, signposting, site clean-up, restoration and landscaping and revegetation within the limit of works.

## 2. Introduction

The success of any project is highly dependent on the competence of the people employed. Therefore, the project team is committed to the development and implementation of this Project Management Plan (PMP). This plan describes Fulton Hogan's overall approach for managing and controlling the delivery requirements on the Project.

This PMP interfaces with the other associated plans, which together describe the proposed overall project management system for the Project.

This PMP is applicable to all staff, employees and subcontractors throughout the duration of the contract until project completion and its implementation and on-going development will be managed by the project team.

The latest revision of this plan is available on the Fulton Hogan server. If any unsigned hard copies of this document are printed, they are valid only on the day of printing.

The revision number is included at the bottom of each page. When revisions occur, the entire document will be issued with the revision number updated accordingly for each owner of a controlled copy.

Attachments/Appendices to this plan are revised independently of this plan.

### 3. Purpose

The purpose of this plan is to describe how the project team intends to carry out the tasks associated with design and construction of the project Works within the terms of Lane Cove Road Ramp D&C Deed requirements, so that all project objectives are fully realised.

It also provides the necessary project controls and information management system to plan, document, monitor, control, audit and verify that Fulton Hogan's operations and finished products with respect to time, cost and quality control are in compliance with the contract documents including the Project Deed, M2 Upgrade Project Deed between Roads and Maritime Services of NSW (RMS) and Hills Motorway Limited.

This PMP provides the outline framework for the all phases of the Project.

### 4. Requirement Matrix

The requirement matrix that is accompanied with this plan is developed to assist users and reviewers to identify where various elements of HM & RMS requirements are addressed in this plan in particular to the Project Deed, Section 2.12 of Schedule of Works and Technical Criteria (SWTC) and Appendix 14 of SWTC.

### 5. Project Milestones

The project Milestones are:

Milestones	Duration	Date
Design Completion <sup>1</sup>	22 weeks	TBA
Construction Completion <sup>2</sup>	58 weeks	TBA
2yr Maintenance	104 weeks	TBA

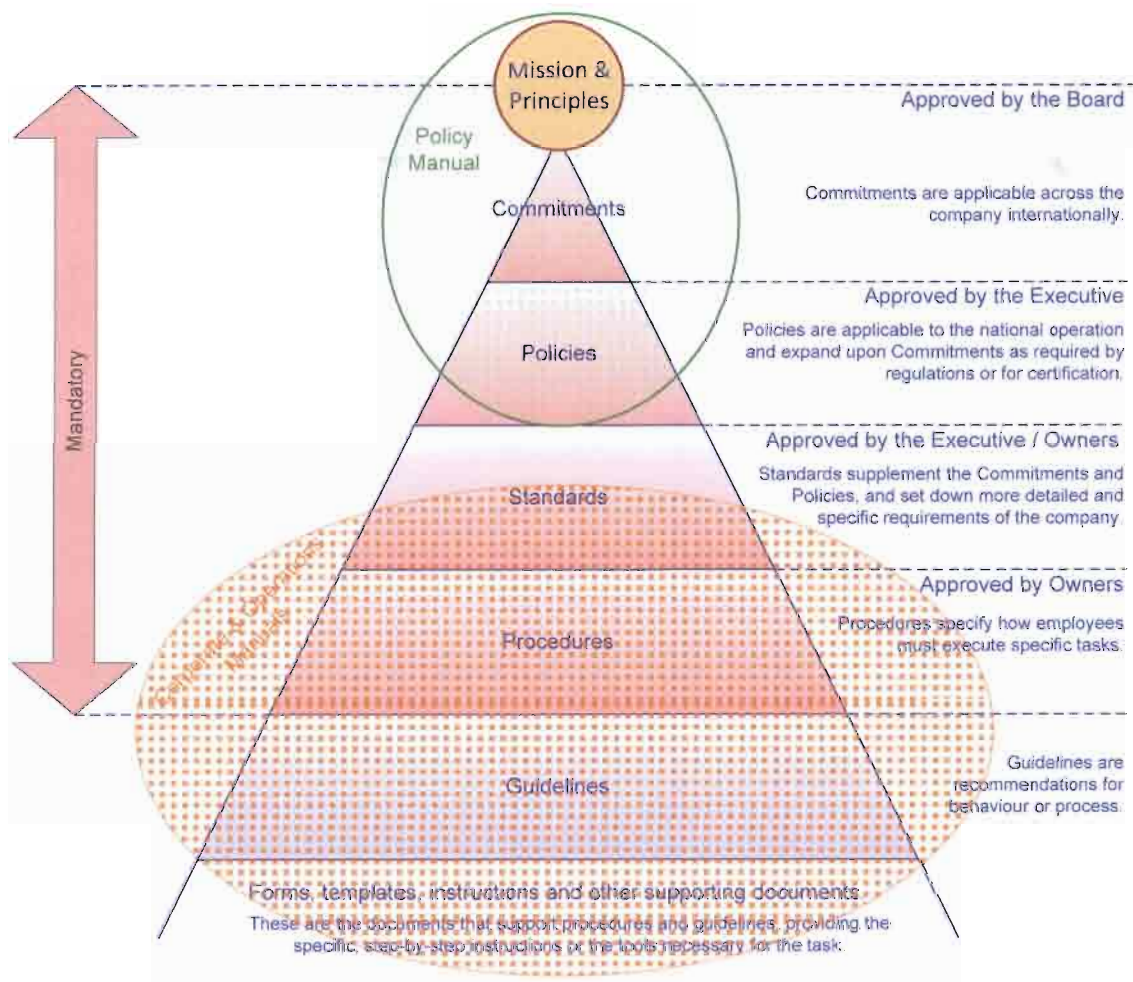
<sup>1</sup>Design sufficient to enable construction commencement

<sup>2</sup>Subjected to any extensions of time during the course of the contract

## 6. Company Commitments, Policies and Standards

The Company Commitments, Policies and Standards represent Fulton Hogan's policy and set down Fulton Hogan's principles, objectives and rules that are required to be followed by the Project Team.

The diagram shown below outlines the hierarchy and approval levels for these documents:



Copies of the following Company Commitments and Policies are shown below and are included in each relevant Plan:

**MISSION STATEMENT**  
 Our key focus is to provide honest, trustworthy services in New Zealand, Australia and the Pacific that will grow shareholder value in a sustainable manner.  
 Our people will be respected, motivated and empowered and will always have a safe workplace.  
 We will manage our impact on the environment in a responsible and proactive manner and proactively interact with both the business community and the wider society around us.

**GENERAL PRINCIPLES**

**Economic Performance**  
 Long-term growth as shareholder value will be achieved through ongoing incremental improvement of our existing business and the achievement of at least half our annual tax and profit.

**Employee Retention**  
 At all times our teams will work in a safe working environment. All employees are encouraged to be healthy and will have equal opportunity for self-improvement leading to long-term career development within the group. Selected employees will have the opportunity to own shares in the company.

**Stakeholder Satisfaction**  
 We will offer competitive and innovative materials and services to our customers that will contribute directly and indirectly to the general well-being of the communities within which we operate.  
 In all aspects of our business we insist on honesty, integrity and fairness and we respect the space in our relationship with whom we deal.

**Environmental Performance**  
 We will responsibly manage our impact on the environment through the prudent use of natural resources and minimising waste. Energy use will be optimised to reduce our impact on the environment.

**MISSION AND GENERAL PRINCIPLES**

<p><b>COMMITMENT TO BUSINESS INTEGRITY</b></p>	<p><b>COMMITMENT TO CUSTOMERS</b></p>	<p><b>COMMITMENT TO SUSTAINABILITY</b></p>
<p><b>COMMITMENT TO COMMUNITY RELATIONS</b></p>	<p><b>COMMITMENT TO HEALTH AND SAFETY</b></p>	<p><b>COMMITMENT TO LEARNING AND DEVELOPMENT</b></p>



The *Commitment to Sustainability* in combination with Fulton Hogan's *Mission and General Principles* fulfils the requirement of AS/NZ ISO 14001 certification, and defines the Company's environmental policy.

Commitments and Policies are required to be displayed in prominent locations at project site offices and facilities. All project personnel, including contractor employees; are made aware of these policies through the induction process.

## 7. Strategy for the Project

This PMP along with other associated plans developed by the members of the project team provides a framework for fulfilling the obligations of the contract documents for the Project. The approaches to be adopted for dealing with key issues; are identified in the Project Risk Register included in the Risk Management Plan (RMP).

Overlaying all of this is the understanding of creating an effective leadership which develops a culture and values consistent with the Objectives of the Project in order to deliver high standard of environmental, community, safety and quality performance.

Creating leadership for delivering a culture that promotes a respect for alternate views will encourage team members to engage in a respectful, open and honest manner. This will set the foundations for increased levels of collaboration, smarter ways of working, motivation, innovation, improved relationships and overall team work.

In addition, the project culture will be developed in line with Fulton Hogan's values (REALity).

REALity stands for **R**espect, **E**nergy and **E**ffort, **A**ttitude and **L**eadership. Fulton Hogan's cultural values program is called, "Live the Fulton Hogan REALity". This program is being implemented across all levels of the company to transform the thinking and behaviour of staff in line with REALity. This program is also open for the client and subcontractors so that their culture and values are consistent with the objectives of Fulton Hogan.

Team members who “Live the Fulton Hogan REALity” are recognised and rewarded through the REALity Awards Scheme. The award scheme recognises team members who are living the Fulton Hogan REALity and display one or more of the values of Respect, Energy and Effort, Attitude and Leadership.

This approach will be driven by the Project Manager and supported by the Senior Project Group (SPG). Combined, they will focus on creating an enabling environment to support and sustain the required culture to reduce any barriers (perceived or real) to effective implementation of the project management plans.

Adoption of this strategy will assist in the achievement of the nominated project objectives.

## 8. Project Objectives and Commitments

### 8.1. Project Objectives

The project objectives have been developed to align with those of the HML as documented, but not limited to, the Project Deed and SWTC.

In summary, the key objectives to be adopted by the Project Team will ensure that the products and services provided by Fulton Hogan for the Project will:

- Satisfy the end user needs;
- Conform to the contractual and regulatory obligations of Fulton Hogan; and
- Satisfy the Code of Ethics published by the various professional and legislative bodies (also associated standards and procedures).

Progress against the nominated objectives will be continually assessed during the course of the project.

The delivery of the objectives for this project is the responsibility of the Project Manager or nominee, as detailed in the Duties and Responsibilities section of this Plan.

### 8.2. Project Commitments

The objectives identified above will be achieved by the project team through the following project commitments:

- Meeting all Project milestones;
- Establishment of a collaborative, open and honest environment with HM, Independent Verifier (IV) and RMS to ensure a free flow of information and ideas to maximise innovative ideas and solutions that present value for money;
- Establishing and maintaining a culture that promotes the key values of safety first, integrity and respect, teamwork and innovation, commitment to early advice that may affect outcomes;
- Establishing the right culture that fosters open thinking and not being locked into “it cannot be done” or “we have always done it this way”;
- Achieving good financial outcomes for all parties;
- Not impeding or restricting either party’s performance;

- Resolving differences or conflicts without litigation;
- Development of design documents that would be expeditiously be signed-off by the HM, IV and RMS representative and other agencies, as required;
- Implementation and maintenance of a site management structure which provides a sound framework within which the activity of Fulton Hogan may be undertaken;
- Employment of suitably trained and qualified staff, the use of appropriate equipment and technology;
- Adoption of procedures which define the methods of performing the various tasks involved in providing the services; define responsibility for performing the tasks; and define methods to establish conformance with the requirements of the procedures; and
- Establishment for the procedures for audit of the management system to determine that the system and procedures are being adhered to, and to review and update procedures which do not satisfy the intent of the system.

### 8.3. Compliance With Objectives

Performance in all target areas will be detailed in Monthly Reports, as well as in performance reports presented to the Project Control Group (PCG) at each of their meetings.

## 9. Key Issues

This project presents a number of challenges that are required to be dealt with by members of the project team. For the purpose of this Plan, the key issues and proposed mitigation measures are addressed in the Project Risk Register that is appended to the Risk Management Plan (RMP).

## 10. Key Result Areas

A summary of the KRA's and KPI's are within each Project Plan and are reproduced here:

KRA	Objective	MCOS (Target)	KPI / month
<b>Legacy</b>	• Project delivered in accordance to RMS's expectations	• Average of client CPR feedback rating $\geq 7$	• CPR rate
	• Add long term value to the project, community, stakeholders and partners of the RMS	• Average of partnering rating $\geq 3$	• Project Health survey score
<b>Safety</b>	• Zero Harm	• No injuries occurring on the project	• N° of FACs
	• Zero Lost Time Injuries	• No Lost Time injuries occurring on the project	• N° of LTI's
	• Zero Medical Treatment Injuries	• No Medical Treatment Injuries occurring on the	• N° of MTIs



KRA	Objective	MCOS (Target)	KPI / month
	<ul style="list-style-type: none"> <li>Safety awareness on site to Improve the safety culture within the project</li> </ul>	project <ul style="list-style-type: none"> <li>Total TRIFR <math>\leq 10</math></li> <li>Regular safety inspections including and involving the workforce conducted</li> </ul>	<ul style="list-style-type: none"> <li>TRIFR frequency rate</li> <li>N<sup>o</sup> of Inspections</li> </ul>
<b>Environment</b>	Compliance <ul style="list-style-type: none"> <li>Ensure the project operates in accordance with all relevant environmental legislation.</li> </ul> Noise and Vibration <ul style="list-style-type: none"> <li>Minimise disturbance of residents caused by construction noise</li> <li>Based on precondition report, minimise instances of property, public utility and structure damage from vibration generated from construction activities as per G36 Annexure I</li> </ul> Soil and Water <ul style="list-style-type: none"> <li>To minimise water pollution caused by construction activities</li> </ul> Air Quality <ul style="list-style-type: none"> <li>To minimise adverse impacts resulting from dust generation</li> </ul> Aboriginal Heritage <ul style="list-style-type: none"> <li>To preserve any new items of Aboriginal significance should these be discovered during the construction works</li> </ul> Non-Aboriginal Heritage <ul style="list-style-type: none"> <li>To preserve any new items of non-Aboriginal significance should these be discovered during the construction works</li> </ul> Biodiversity <ul style="list-style-type: none"> <li>To minimise adverse impacts on threatened flora and fauna should these be discovered during the construction works</li> </ul> Waste <ul style="list-style-type: none"> <li>To minimise generation of waste from the construction activities and to maximise reuse and recycling where appropriate</li> </ul>	<ul style="list-style-type: none"> <li>No fines/prosecutions for breaches of legislations</li> <li>Aim to not exceed the background (L<sub>90</sub>) level by more than 10 dB(A)</li> <li>No instances of damage to structures caused by vibration</li> <li>Zero unauthorised discharges to receiving environment</li> <li>No instances of dust related complaints from the public</li> <li>No instances of damage to items of Aboriginal significance</li> <li>No instances of damage to items of non-Aboriginal significance</li> <li>No instances of damage to threatened flora and fauna</li> <li>Zero waste to landfill</li> </ul>	<ul style="list-style-type: none"> <li>N<sup>o</sup> of fines</li> <li>N<sup>o</sup> of incidents</li> <li>N<sup>o</sup> of incidents</li> <li>N<sup>o</sup> of incidents</li> <li>N<sup>o</sup> of incidents</li> <li>N<sup>o</sup> of incidents</li> <li>N<sup>o</sup> of incidents</li> <li>N<sup>o</sup> of incidents</li> <li>N<sup>o</sup> of tonnes to landfill</li> </ul>
<b>Quality</b>	<ul style="list-style-type: none"> <li>Quality of work satisfies RMS expectations</li> <li>Deliver excellence in quality of product</li> </ul>	<ul style="list-style-type: none"> <li>&gt;70% and/or <math>\leq 1000</math> of the lots closed during construction and no lots open &gt; 60 days</li> <li>&gt;70% and/or <math>\leq 100</math> of the</li> </ul>	<ul style="list-style-type: none"> <li>N<sup>o</sup> of Lots open</li> <li>N<sup>o</sup> of HPWPs</li> </ul>

KRA	Objective	MCOS (Target)	KPI / month
		<ul style="list-style-type: none"> <li>hold points closed during construction and no hold points open &gt; 60 days</li> <li>&gt;70% and/or ≤50 of the NCRs closed during construction and no NCRs open &gt; 60 days</li> <li>&gt;70% and/or ≤50 of the RFI closed during construction and no RFIs open &gt; 60 days</li> <li>Cost of product related NCRs measured</li> <li>IRI index for pavement ride quality ≤ 1.4</li> </ul>	<ul style="list-style-type: none"> <li>open</li> <li>N° of NCRs open</li> <li>N° of RFI's open</li> <li>N° of product related NCRs without cost</li> <li>IRI index</li> </ul>
<b>Schedule</b>	<ul style="list-style-type: none"> <li>Construction Program on target</li> </ul>	<ul style="list-style-type: none"> <li>Completion prior to the programmed completion date</li> </ul>	<ul style="list-style-type: none"> <li>N° of days behind the program</li> </ul>
<b>Traffic Operations</b>	<ul style="list-style-type: none"> <li>No unplanned impact on traffic flow due to works</li> <li>Average travel times are maintained during peak periods</li> <li>A safe environment is provided for road users and workers</li> <li>Ensure impacts on road users are kept to a minimum</li> <li>Ensure road users and the community are regularly informed about traffic changes</li> </ul>	<ul style="list-style-type: none"> <li>Road is not occupied beyond times stipulated in the ROLs by more than 15 minutes</li> <li>Travel time for Northbound trip between Toolijooa Rd to Mt Pleasant measured between 7:30AM and 8:30 AM ≤ 12 minutes</li> <li>Travel time for Southbound Trip between Mt Pleasant to Toolijooa Rd measured between 4:00 PM to 5:30 PM ≤ 12 minutes</li> <li>No traffic incidents caused by the construction activities that causes a major deviation on the highway</li> <li>Temporary traffic control audit score ≥ 90%</li> <li>No traffic related complaints</li> </ul>	<ul style="list-style-type: none"> <li>N° of cases road occupied beyond times stipulated in ROLs by &gt;15 minutes</li> <li>Average travel time in minutes</li> <li>Average travel time in minutes</li> <li>N° of incidents</li> <li>% of audit score</li> <li>N° of traffic related complaints</li> </ul>
<b>Stakeholder Relations</b>	<ul style="list-style-type: none"> <li>Positive relations with key external stakeholders</li> <li>Effectively manage complaints, potential issues and incidents</li> </ul>	<ul style="list-style-type: none"> <li>Outstanding relations with the stakeholders</li> <li>80% of contacts responded to within agreed timeframes</li> <li>80% of enquiries and complaints are managed</li> </ul>	<ul style="list-style-type: none"> <li>% contacts categorised as complaints</li> <li>N° of written positive feedback</li> <li>% of contacts</li> </ul>

KRA	Objective	MCOS (Target)	KPI / month
		<ul style="list-style-type: none"> <li>within agreed timeframes</li> <li>Positive feedback during project meetings</li> </ul>	<ul style="list-style-type: none"> <li>responded within agreed timeframe</li> <li>% of enquiries and complaints managed within agreed timeframe</li> </ul>
<b>Industrial Relations</b>	<ul style="list-style-type: none"> <li>Prevent industrial disputes, and improve project performance;</li> <li>Sub-contractors comply with the National Employment Standards prescribed in Fair Work Act and National Code of Practice</li> <li>Establish a strong cooperative relationship with the workforce and with their employee organisation based on mutual trust and respect</li> </ul>	<ul style="list-style-type: none"> <li>No Industrial disputes</li> <li>All subcontractors have been audited by an employer association to sustain evidence of compliance</li> <li>All relevant staff undertakes industrial relations training so they are confident in dealing with workplace issues.</li> </ul>	<ul style="list-style-type: none"> <li>N° of industrial disputes</li> <li>N° of Audits conducted</li> <li>N° of Industrial Relation training conducted</li> </ul>
<b>Aboriginal Participation</b>	<ul style="list-style-type: none"> <li>Satisfy the local Aboriginal Community needs</li> <li>Conform to the IES of the Company</li> <li>Satisfy the NSW Guidelines for Aboriginal Participation in Construction Implementation Guidelines (January 2007)</li> </ul>	<ul style="list-style-type: none"> <li>Meet the numbers identified in the Project Opportunity Planning Schedule by the end of the Project.</li> <li>AIMSC Supplier to be used if possible</li> </ul>	<ul style="list-style-type: none"> <li>N° of indigenous persons engaged</li> <li>N° of Supplies</li> </ul>
<b>Training</b>	<ul style="list-style-type: none"> <li>Meet the targets specified in the NSW Training Management Guidelines</li> </ul>	<ul style="list-style-type: none"> <li>Project Training Target = 20% of the average number of site construction personnel</li> <li>Apprentice Target = 20% of the total number of trades people</li> </ul>	<ul style="list-style-type: none"> <li>Hours of Training</li> <li>N° of Attendees</li> </ul>

## 11. Management System

### 11.1. Overview

Fulton Hogan has a well-established and proven integrated management system that is founded on developed:

- Corporate Manuals; and
- Operational Manuals.

The Corporate Manuals includes the following Manuals:

- Quality Manual;
- Health and Safety Manual;
- Environmental Manual;
- Communications Manual;
- Human Resources Manual;
- Commercial Manual;
- Development Manual;
- Finance and Administration Manual;
- IT and Systems Manual; and
- Operational Improvement Manual.

The Operations Manual relating to the construction of this Project is called the Construction Manual.

These Manuals contain company procedures, guidelines and tools to provide a framework mechanism for implementation activities.

For the purpose of this plan, Fulton Hogan Integrated Management System (IMS) is further described in the Fulton Hogan [IMS Manual](#).

In order for Fulton Hogan perform to a high standard and to industry best practice throughout the Project, this PMP together with Fulton Hogan corporate and operational manuals (the Construction Manual) will be used on this project to plan, document, monitor, control, audit and verify that Fulton Hogan's operations and finished products are in compliance with the following:

- Applicable statutory acts, regulations, guides and codes of practice, etc;
- Specified contractual requirements; and
- Applicable Australian and International Standards, Guides and Codes, etc.

The IMS documents are stored on the Fulton Hogan [intranet](#) (Infolink) that provides real time access and is used to house the bulk of the IMS documents. It provides a structured environment for locating and using documents, as well as managing the change and approval process.

The content of the IMS documents that are relevant to this Project are required to be available to all external parties upon request.

## 11.2. [Project Plans](#)

The project management plans are documented to include additional management procedures that are considered critical (Quality, Safety, Environment) in achieving the MH and RMS objectives identified in the SWTC (and other relevant documents) and are written to address resources and issues requiring greater detail for implementation at project level than that provided in the corporate and state processes and procedures.

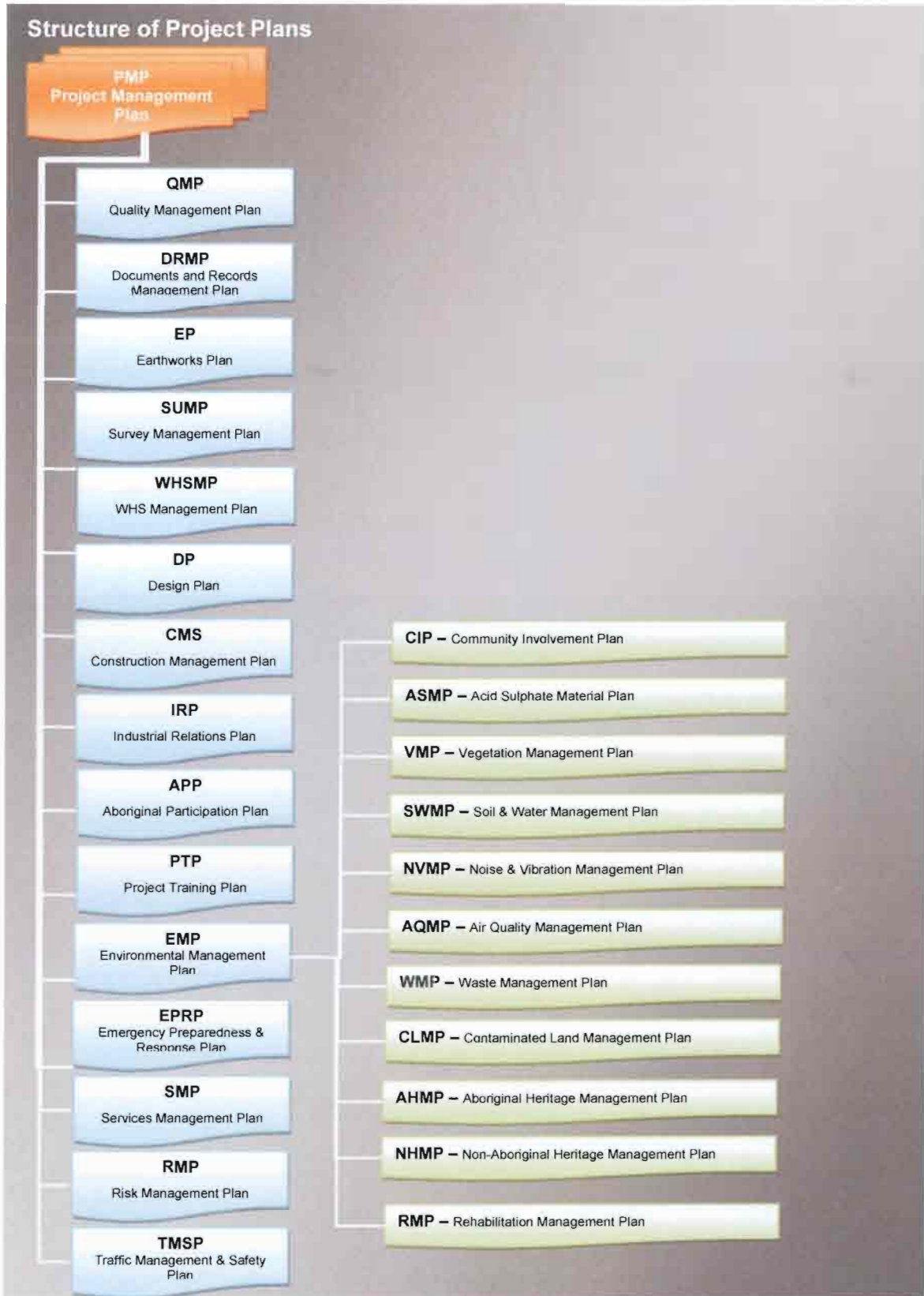
They provide a detailed description of how the project team plan to carry out the Works in accordance with the requirements of the Project Deed, M2 Upgrade Project Deed and SWTC.

All project plans are required to be submitted to the Client Representative and the Independent Verifier for approval within 20 business days of the date of the Deed, as required and revised if Fulton Hogan received a notice under Clause 7.11(a) of the Project Deed.

The requirements set out in the Plans are minimum requirements for the Project and they are not to be decreased or otherwise reduce these requirements in the developed and any subsequently amended versions of the plans, unless an approval is sought from the MH's Representative.

The project plans will be controlled throughout the duration of the contract and will cease of being controlled once the Project is completed.

This PMP interfaces with the following management plans produced to describe the overall project management system for the project:



**Risk Management Plan**

The RMP describes the systematic approaches that will be used by the project team to identify, record, assess, mitigate and manage risks and opportunities associated with the Project. This plan also defines the procedures to assist the project management team to effectively manage Risk and Opportunity on the Project.

**Quality Management Plan**

This Plan will be documented to describe how Fulton Hogan will manage and control the quality aspects on the Project within the requirements and constraints of the Project Deed, M2 Upgrade Deed and SWTC.

**Construction Management Plan**

The CMP describes how the physical construction activities of the Project will be managed on the basis of Fulton Hogan's ability in performing the works in a systematic, safe and environmentally sustainable manner as well as in a way that minimises the impacts of the construction works with relevant stakeholders.

**Design Plan**

The DP covers all activities by Fulton Hogan necessary to manage the design process from contract award through to the completion of "As Built Drawings".

**Workplace Health and Safety Management Plan**

The WHSMP addresses Fulton Hogan's commitments for providing a safe and healthy environment for employees and other parties involved in this Project.

This plan incorporates the OHS Development Plan which provides directions on how to undertake the construction of the works in compliance with the Occupational Health & Safety Act and the requirements of applicable legislation, Regulations Codes and Standards as well as the requirements of RMS on the Project as depicted in the Project Deed, M2 Upgrade Deed and SWTC.

**Emergency Preparedness and Response Plan**

The EPRP applies to any incident or emergency situation occurring on the Project, or involving Project personnel away from their regular place of work but whilst on company business.

This Emergency Response Plan provides an integrated approach to the management of both environmental and safety incidents and emergencies at the Project, including where the assistance of external emergency response agencies may be required.

**Environmental Management Plan**

The EMP describes the manner how Fulton Hogan will identify, manage and control the environmental aspects of the Project during both the design and construction phases of the Project. It includes several Sub Plans which interface with the rest of the project plans.

**Community Involvement Plan**

The CIP establishes the processes and protocols for Fulton Hogan to liaise and communicate with the local community on issues related to the construction works. It addresses the needs and concerns of the local residents and businesses is developed by the project team before the works commence.

### **Industrial Relations Plan**

The IRP will be developed to provide the project team with the information, guidelines, objectives and instructions needed to effectively manage and control the industrial relation aspects of the Project in accordance with the Project Deed. The main objective of this plan is to maintain industrial harmony on the Project by establishing management control measures that can ensure that the employment of the site workforce is in accordance with the applicable Workplace Industrial and Employment Acts and associated entitlements as well as to provide a framework for consultation with the workforce.

### **Project Training Plan**

The PTP will be developed to define the processes employed by Fulton Hogan in relation to project training in accordance with the requirements of the SWTC, Project Deed as well as in accordance to NSW State Government Training Management Guidelines.

### **Traffic Management & Safety Plan**

The TMSP details the management of public vehicular, pedestrian traffic and construction traffic within the Project works.

### **Services Management Plan**

The SMP describes the systematic approaches that will be used by the project team to identify record, assess, mitigate and manage risks associated with underground and above ground utilities

### **Aboriginal Participation Plan**

The APP will be prepared for use by the project team including subcontractors engaged by Fulton Hogan. This plan addresses the requirements of the NSW State Government's Aboriginal Participation Guidelines.

### **Project Maintenance Manual**

This Manual will be developed 150 days prior to the expected date of Final Completion and will detail how Fulton Hogan will carry out the Maintenance activities on this Project.

All the above listed Plans will be a quality assurance document prepared in accordance with AS/NZS ISO 9001-2008 and must recognise and adhere to the requirements of the Quality Management Plan.

Fulton Hogan Warrants that each of the above listed Plans will benefit for its intended purpose.

## **11.3. Technical Documents**

These are *project specific* process control and management planning documents that provide users with process control and associated details required to successfully manage and control the project activities.

Technical documents consists the following:

- Work Packs (WP)
- Construction Method Statements (CMS)



- Inspection and Test Plans (ITP) & associated monitoring & verification checklists
- Safe Work Method Statements (SWMS)
- Environmental Work Method Statement (EWMS)
- Erosion and Sediment Control Plans (ESCP)
- Layout plans, sketches, etc that detail safety and environmental hazard control measures and associated with the works.

These documentations incorporate information such as the methodology of carrying out the works, inspection, testing and verification details, acceptance criteria, instructions and registers, etc.

The information instructions and data contained in these technical procedures are management tools that will allow the project team to establish a systematic method of controlling the works and verifying that the specified acceptance criteria have been successfully achieved.

The schedule CMS for the work processes required by 7.5.1 of RMS DCM Q6 and ITPs required by 8.1.1 of RMS DCM Q6 will be appended to the QMP.

## 12. Changes to Project Plans & Associated Documents

Fulton Hogan's IMS allows for implementing changes to Project Management Plans. Specifically if the documents:

- are not adequately addressing the Project requirements, are causing nonconformity;
- are no longer representing current practice or as a result of adverse audit findings; and
- are no longer representing Fulton Hogan's current or appropriate practice.
- If directed or notified by the Client Representative and/or the Independent Verifier that this Plan and the associated procedures do not comply with the Project Deed and M2 Upgrade Deed.

This is also includes the following requirements:

- Changes in project management processes;
- Changes identified by the continuous improvement of processes;
- Changes in law;
- Changes in design;
- Changes in construction sequencing, staging, methodology;
- Changes in resourcing;
- The status and progress of the works;
- Changes in access to the Site;
- Variations (both positive and negative);
- Changes in the design and construction processes, including the use and development of new designs and materials;

- New design and construction processes requiring documentation which this Plan does not address; and
- Any other event or circumstance impacting the delivery of the Project.

The changes must:

- Remedy the deficiency in the Management Plans; and
- Not reduce the effectiveness the control and supervision of the works.



For the purpose of this Plan, this is further addressed under Document and Records Management Plan.

### 13. Management Structure

Fulton Hogan, as the contractor, is supported by a number of provider organisations during the contracting stage of works.

Fulton Hogan will be the contract entity with Hills Motorway. Fulton Hogan will make available its most experienced resources and nationwide access to equipment and technology. Fulton Hogan will incorporate collaborative principles to drive performance and to provide MH and RMS a value for money solution for the Project.

The following table describes the role and responsibilities of Fulton Hogan and the nominated Providers.

Organisation	Roles and Responsibilities	Lines of Communication and Reporting
	<ul style="list-style-type: none"> <li>• Overall project and risk management - design, construction and commissioning</li> <li>• Self-performance of some work elements</li> <li>• Develop, implement and maintain the project-related management plans</li> <li>• Develop and implement strategies to ensure a non-adversarial approach and the timely resolution of issues</li> </ul>	<ul style="list-style-type: none"> <li>• In accordance with the requirements of the Project Deed – for details refer to the table below</li> </ul>
	<ul style="list-style-type: none"> <li>• Principal Design Consultant</li> <li>• Manage design development in accordance with contract program, RMS's SWTC and requirements, environmental requirements and conditions of Planning Approval</li> <li>• Documentation, detailing and certification of an efficient and constructible design including value engineering</li> <li>• Design coordination with and performance responsibility for sub-consultants</li> </ul>	<ul style="list-style-type: none"> <li>• Reports to Fulton Hogan Project Manager</li> <li>• Liaise with other design consultants to ensure design coordination</li> </ul>

### 13.1. Design Organisation Structure

Fulton Hogan has put together a highly skilled and experienced team for the Project. The fully integrated design team, led by AECOM as Principal Designer, also includes Urban Designer and Landscape Designer.

The organisation chart that is appended to this Plan illustrates the structure of Fulton Hogan's design organisation.

The design team will be supported by Fulton Hogan who will be involved in the temporary works design, construction methodologies and providing value engineering and constructability advice.

The requirement of independent Project verification and proof engineering will be detailed in the Design Plan.

### 13.2. Construction Organisation Structure

Fulton Hogan has put together a highly skilled and experienced team for the Project.

The project organisation structure is appended to this Plan.

## 14. Resource Management and Monitoring

Fulton Hogan will provide adequate resources to improve and implement the management systems as well as to monitor and improve MH and RMS satisfaction.

Resources maybe human, specialised skills, infrastructure, work environment, information, suppliers and partners, financial or technical resources.

### Human Resources

The day to day project staffing requirements will be assessed by the PCG. If the PCG consider additional resources are required to complete the milestones or if a member of the project team is unable to participate due to ill health or personal matters, then this will be reported to the Project Manager to take the necessary action to expeditiously rectify the situation.

The Project Manager is also responsible for the employment of all staff under his control providing approval is sought from the General Manager – Eastern Construction before employing permanent staff.

All staff will be required to be competent and suitable for the positions nominated on the organisation charts that are appended to this Plan.

Unless otherwise approved by the Client Representative, all staff will also be required to have the experience and the knowledge required in that field in accordance to Schedule

6 of the Project Deed and have the ability to carry out the duties and responsibilities set in relevant Position Descriptions.

Each position of the management team will have a performance milestone, the methodology for setting and reviewing the performance milestone is addressed in the Project Training Plan under reviewing existing skills and qualifications.

In the event of the absence of key personnel, a suitably qualified and experienced person is to be appointed to assume the responsibilities of the absentee's role.

### **Infrastructure**

Senior management is responsible for ensuring that the present and future infrastructure needs on this project are defined, available and managed. Infrastructure shall include plant, workspace, tools, equipment, support services, information, communication technology and transport facilities.

### **Work Environment**

The Project Manager is responsible for ensuring that the facilities and amenities for the operations in this project is safe, motivating, hygienic, allows social interaction and conforms to the requirements and standards of state and federal legislation and guidelines of various codes of practice. The workplace to be continually assessed for hazards and control measures implemented to ensure that they are not detrimental to the health of any employee or have an impact on the environment.

The Project Manager is to identify and manage human and physical factors at work environment. The work environment is to be appropriate to the process undertaken.

## **15. Authorities, Duties and Responsibilities**

All personnel involved in this Project are directed to follow the Company's [Delegation & Limits of Authority Table](#) and adhere to the duties and responsibilities specified under various documented Plans, Procedures and Position Descriptions.

For the purpose of this Plan, the highlighted duties and responsibilities that are specified within the body of applicable Plans and Procedures are summarised in the [Duties and Responsibilities Matrix](#) that is also appended to this Plan.

In the absence of a formal delegation of authority, the duties and responsibilities of a vacant position will be assumed by the immediate supervisor/manager.

In addition, the following tables are also required to be adhered to as they list the roles and responsibilities, lines of communication and reporting for the key design and construction positions shown in the organisation charts:

**Construction Team** (Managers, Engineers and Supervisors only)

Position	Roles and Responsibilities	Lines of Communication and Reporting
Senior Project Group (SPG)	<ul style="list-style-type: none"> <li>Provides forum for senior management of MH, RMS and Fulton Hogan to give direction, assess and resolve any major issues that fall outside the day-to-day activities of the PCG and the project team.</li> <li>Authorised to resolve major issues on behalf of participants.</li> </ul>	<ul style="list-style-type: none"> <li>Authority to make binding commitments on behalf of RMS, and Fulton Hogan Construction participants to resolve issues crucial to the delivery of the project.</li> </ul>
General Manager – Eastern Construction	<ul style="list-style-type: none"> <li>Has the overall responsibility for ensuring that the assigned Project Team is effectively managing and controlling the construction processes carried out by Fulton Hogan Construction and its subcontractors, and that the works are being carried out in accordance with the contract requirements and applicable statutory acts and regulations.</li> </ul>	<ul style="list-style-type: none"> <li>Reports to Fulton Hogan COO Construction</li> <li>Attends PCG and SPG meetings and provides all necessary reports</li> </ul>
Operations Manager	<ul style="list-style-type: none"> <li>Has the responsibility in assisting the General Manager – Eastern Construction for ensuring that the assigned Project Director is effectively managing and controlling the construction processes carried out by Fulton Hogan Construction and its subcontractors, and that the works are being carried out in accordance with the contract requirements and applicable statutory acts and regulations.</li> </ul>	<ul style="list-style-type: none"> <li>Reports to General Manager – Eastern Construction</li> <li>Attends PCG and SPG meetings and provides all necessary reports</li> </ul>
Project Manager	<ul style="list-style-type: none"> <li>Accountable for overall Project performance</li> <li>Responsible for day-to-day management of the Project</li> <li>Responsible for time, cost, quality, safety and health, environmental, industrial relations and community relations objectives of the Project as set out in the Contract</li> <li>Provides leadership to Project team</li> <li>Manages time, cost, quality, environmental, safety and health and community relations performance of the construction works specific to their discipline</li> </ul>	<ul style="list-style-type: none"> <li>Reports to MH, IV and RMS's representative</li> <li>Accountable to Fulton Hogan's General Manager – Eastern Construction</li> <li>Authority to commit to all site expenditure</li> <li>Authority to direct the Project team</li> </ul>

Position	Roles and Responsibilities	Lines of Communication and Reporting
	<ul style="list-style-type: none"> <li>• Drives construction performance through efficiencies in construction processes and methodologies</li> </ul>	
Senior Project Engineer	<ul style="list-style-type: none"> <li>• Responsible for liaising with MH, IV and RMS technical staff, the design consultants, the construction team and key stakeholders to ensure that the final design optimises compliance and constructability and minimises cost, time, and construction risks</li> <li>• Responsibility for the design and design approval process, including buildability</li> <li>• Ensures that design is carried out within the requirements of the Contract during both design and construction faces of Project.</li> <li>• Implements the Quality, OHS &amp; CEM Plans</li> <li>• Drives construction performance through efficiencies in construction processes and methodologies</li> <li>• Consults with the Project Director to develop and maintain cost centres and budgets and monitor expenditure to ensure that costs are not exceeded</li> <li>• Monitors all project agreements and contracts</li> </ul>	<ul style="list-style-type: none"> <li>• Reports to the Project Manager</li> <li>• Authority to approve design documentation</li> <li>• Authority to direct design consultants</li> <li>• Liaises with MH, RMS technical staff and the Independent Verifier with respect to design</li> <li>• Authority to direct all construction resources and satisfaction of all construction related requirements</li> <li>• Authority to manage administration, cost management and planning functions</li> </ul>
Quality Engineer	<ul style="list-style-type: none"> <li>• Initiates action to ensure compliance with the Project Quality Plan</li> <li>• Undertakes internal audits including major suppliers and subcontractors</li> </ul>	<ul style="list-style-type: none"> <li>• Reports to the Project Manager</li> <li>• Authority to direct the project team as to quality</li> </ul>
Project Engineer	<ul style="list-style-type: none"> <li>• Planning, procurement and coordination of all resources required for construction activities</li> <li>• Driving efficiencies in construction processes and methodologies</li> <li>• Resolve all technical issues</li> <li>• Maintain and report performance</li> <li>• Develop strategies and plans to minimise traffic disruption and to ensure safety</li> <li>• Monitor the effectiveness of plans</li> </ul>	<ul style="list-style-type: none"> <li>• Reports to Project Manager</li> <li>• Communication with Project Engineers for respective discipline</li> <li>• Other communication links as per organisation structure</li> </ul>
Site Engineer/ Graduate Engineer	<ul style="list-style-type: none"> <li>• Assisting in planning, procurement and coordination of all resources required for construction activities</li> <li>• Driving efficiencies in construction</li> </ul>	<ul style="list-style-type: none"> <li>• Reports to Project Engineer</li> <li>• Communication as per organisation structure</li> </ul>

Position	Roles and Responsibilities	Lines of Communication and Reporting
	<p>processes and methodologies</p> <ul style="list-style-type: none"> <li>• Resolve all technical issues</li> <li>• Maintain and report performance</li> <li>• Proofs that the work complies with the requirement of the contract.</li> <li>• Performs functions as directed by Project Engineer.</li> <li>• Implements induction and training programs</li> </ul>	
Superintendent	<ul style="list-style-type: none"> <li>• Day to day management and supervision of the on-site resources for all construction activities, including direct labour and subcontractors</li> <li>• Achieving quality and program objectives in a safe environment</li> </ul>	<ul style="list-style-type: none"> <li>• Reports to Project Manager</li> <li>• Maintain communication with foremen and subcontractors as required</li> <li>• Other communication links as per the organisation structure.</li> </ul>
Supervisor/ Foremen	<ul style="list-style-type: none"> <li>• Day to day supervision of on-site direct labour and subcontractors</li> <li>• Achieving quality and program objectives in a safe environment</li> </ul>	<ul style="list-style-type: none"> <li>• Report to Superintendent</li> <li>• General communication, particularly in relation to safety and environmental controls</li> </ul>
WHS Coordinator	<ul style="list-style-type: none"> <li>• Actively promotes Company's Safety and Health Policy and ensures that policies are supported by effective procedures</li> <li>• Implements induction and training programs</li> <li>• Ensures that the WHSMP is effectively implemented and maintained</li> </ul>	<ul style="list-style-type: none"> <li>• Reports to the Project Manager</li> <li>• Authority to liaise with WorkCover Authority on safety matters</li> <li>• Authority to direct construction team</li> </ul>
Environmental Manager (Eastern Construction)	<ul style="list-style-type: none"> <li>• Prepares the Construction Environmental Management Plan (CEMP) in conjunction with stakeholders and ensures that it is effectively implemented</li> <li>• Initiates, recommends or provides solutions to environmental problems and verifies the effectiveness of such solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Reports to the Project Manager</li> <li>• Authority to liaise with stakeholders</li> <li>• Authority to ensure that environmental conditions of consent/ approval are satisfied</li> </ul>
Community Liaison Representative	<ul style="list-style-type: none"> <li>• Responsibility for all community involvement and communication during the Project</li> <li>• Manages the complaints register including recording details of and action taken in response to all complaints</li> </ul>	<ul style="list-style-type: none"> <li>• Reports to the Project Manager</li> <li>• Authority to liaise with community stakeholders excluding government, media and political representation other than where directed</li> </ul>
Regional HR/IR Manager	<ul style="list-style-type: none"> <li>• Manages Employee relations, compliance with Statutory and</li> </ul>	<ul style="list-style-type: none"> <li>• Reports to the Project Manager</li> <li>• Liaises with Participant's IR and</li> </ul>

Position	Roles and Responsibilities	Lines of Communication and Reporting
(Offsite)	<ul style="list-style-type: none"> <li>legislative requirements</li> <li>Ensures Code Compliance by Participants, subcontractors and suppliers</li> </ul>	<ul style="list-style-type: none"> <li>Code compliance Managers</li> <li>Liaises with Union Representatives</li> </ul>
Business Manager (Offsite)	<ul style="list-style-type: none"> <li>Consults with the Project Manager to develop and maintain cost centres and budgets and monitor expenditure to ensure that costs are not exceeded</li> </ul>	<ul style="list-style-type: none"> <li>Reports to the Project Manager</li> <li>Authority to manage administration, cost management and planning functions</li> </ul>
Surveyor	<ul style="list-style-type: none"> <li>Planning, execution, control and documentation of all survey set out for the works</li> </ul>	<ul style="list-style-type: none"> <li>Reports to Project Engineer</li> <li>Communication with rest of the Project Team</li> </ul>

## 16. Management Representatives

- The Project Manager is Fulton Hogan's contract representative, and is responsible for the administration of the contract and has the overall responsibility for ensuring that site construction activities are in accordance with Deed requirements, and in compliance with Fulton Hogan's management system.
- The WHS Coordinator is the project's health and safety management system representative with overall responsibilities for maintaining the effectiveness of the project's health and safety management system.
- The Quality Engineer is the project's quality management system representative with overall responsibilities for maintaining the effectiveness of the project's quality management system.
- The Environmental Manager (Central Construction) is the project's environmental management system representative with overall responsibilities for maintaining the effectiveness of the project's environmental management system.

## 17. Issue Management

Issues arising on the Project are to be captured and discussed during meetings.

If an issue falls under the following categories, they are required to be escalated and brought to the attention of the Senior Managers attending PCG/SPG meetings.

- Issues that have exceeded allocated timeframe – issue not being resolved in initial meeting
- Issues with an extended timeframe – need monitoring for tailored actions when required
- Issue that cannot be resolved in initial meeting
- Issue that have a significant time Impact – Issue will have a serious time consequence on project if not resolved.



- Issues that will have significant Commercial Impact – Issue will have a serious cost consequence on project if not resolved.

The chairman of the relevant meeting is to decide if an issue is required to be escalated or not.

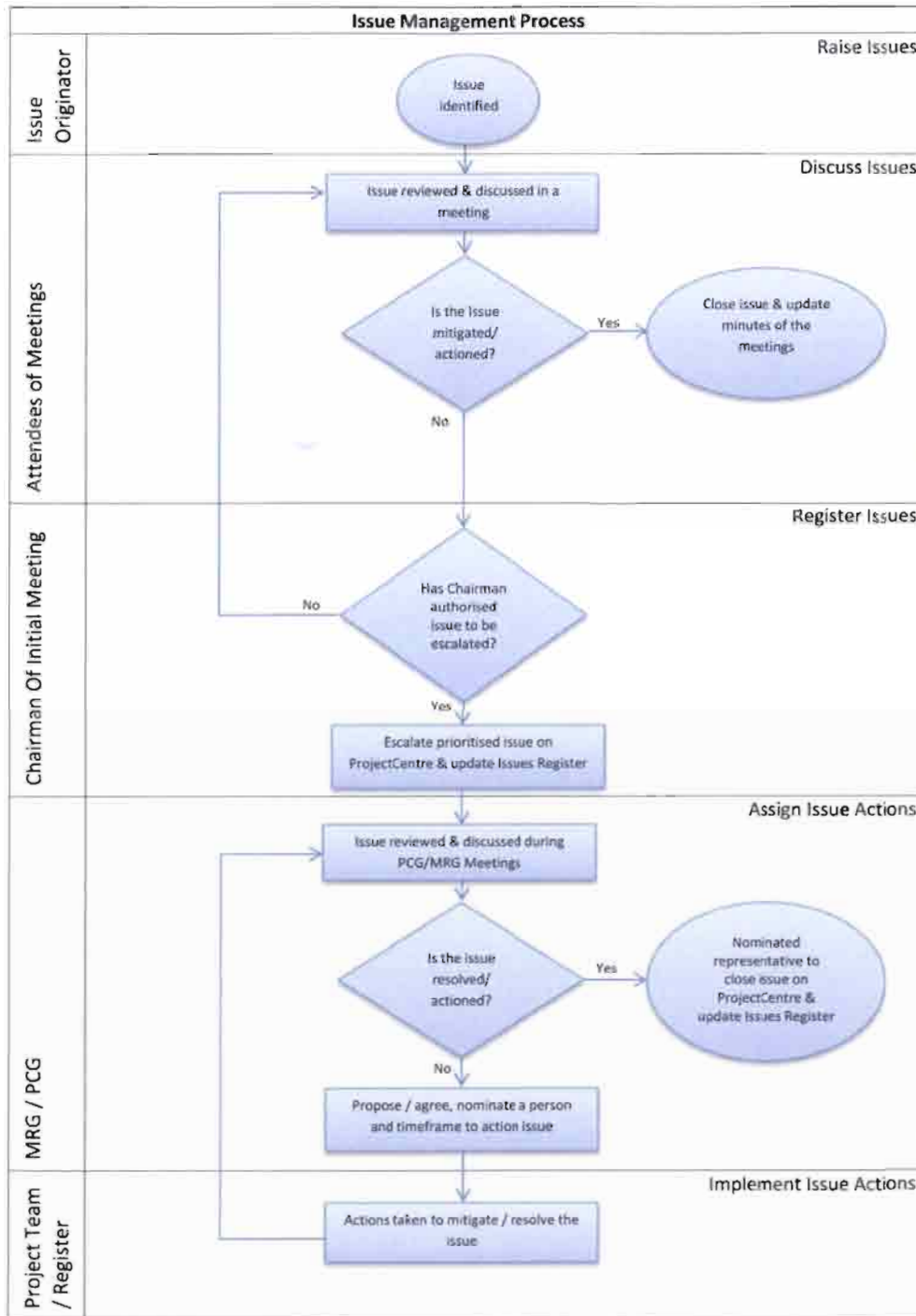
Attendees to PCG/SPG meetings are required to:

- Elaborate on the issues that have been escalated and decide upon corrective action needed;
- Propose a liable person that has a direct ability to co-ordinate and resolve the issue;
- Raise a change request if a change to the project is required to mitigate/resolve the issue.

Each party will have the obligations to do it reasonable things necessary to resolve issues and avoid hindering the other party in performance of the other party's obligations under the Project Deed.

Where applicable, the summary/status of the issues will also be addressed in the Project Monthly Reports.

The process of managing issues is summarised in the issue management process flowchart shown below.



## 18. Management Review

### 18.1. Planning Reviews

The Project Manager is required to be responsible for establishing a systematic management review process that is aimed at:

- ensuring that the project construction activities are effectively managed and coordinated with the various organisations involved in the construction of the works;
- reviewing and improving deficiencies identified in the administration, operation, planning and coordination of the various construction activities; and
- identifying and resolving issues of concern reported by Fulton Hogan or by external organisations.

The Management Review process is also required to be targeted at project management planning and control processes to:

- verify the effectiveness of the established plans and control measures;
- address failures in implementation or compliance with planned or specified requirements; and
- propose actions that will improve the effectiveness of the management planning and control measures.

To implement an effective Management Review process, the Project Manager is to ensure that the following types of meetings are arranged at regular intervals with the various project stakeholders:

- A. Internal (Fulton Hogan) management review meetings and other respective team meetings by relevant Project Team.
- B. Co-ordination meetings with subcontractors, consultants and suppliers.
- C. Communications and coordination meetings with the MH, IV and RMS Representatives including:
  - Project Control Group Meetings (PCG);
  - Senior Project Group Meetings (SPG);
  - Project Review Group Meetings (PRG);
  - Evaluation Meetings (Project Health);
  - Quality Meetings; and
  - Others determined during the course of the project, as required.
- D. Communications and liaison meetings with representatives of project stakeholders, as required.

Note: meetings involving external parties must be arranged with the approval of HM's representatives.

The Project Manager is required to organise above mentioned regular reviews with the site personnel to discuss Safety, Environmental, Quality, Contractual, Training, ethical issues and to facilitate any changes that need to be made as construction progresses.

The key issues to be discussed at these meetings as a minimum should include:

- Any major incidents and non-conformances that have occurred in the previous period;
- The safety and environmental performance of the project, including Fulton Hogan Construction and subcontractor operations;
- Any proposed changes to access including road closures;
- Any major activities occurring which might impact on other principals;
- Any introduction of equipment or substances that may impact on other principals;
- Customer complaints;
- Industrial disputes or employment issues of concern or grievances; and
- Issues in accordance to Risk Management Sub-Plan (RMP).

In addition to the issues identified above, these meetings will also address the outputs from the project's Safety Monitoring Schedule. This holistic approach is to be applied in order to effectively monitor and review the ongoing performance of Fulton Hogan Construction, project subcontractors and project suppliers.

The Project Manager to be responsible for coordinating these meetings and minutes of the meeting is required to be generated and distributed and actioned accordingly.

Internal meeting requirements are further addressed in this Plan, under Internal Communications.

## 18.2. Project Control Group Reviews

The Project Control Group (PCG) in accordance to clause 7.7 of Project Deed comprises:

- i. HM' Representative;
- ii. Fulton Hogan's Representative;
- iii. A representative from Financier
- iv. representatives of any of the Subcontractors which MH's Representative reasonably requires; and
- v. any person MH Representative reasonably requires from time to time;

Project Control Group functions include:

A. Reviewing:

- the progress of the Fulton Hogan's Work in relation to the Construction Plan and the performance of Fulton Hogan;
- the quality of work and any remedial measures required;
- matters arising from the Design Documentation including any proposed design changes;
- environmental issues;
- safety issues; and
- community issues.

- B. Where appropriate, referring matters to the Senior Project Group for consideration and assistance in resolution.

The PCG will be required to meet on a regular monthly basis or such other regular period as MH and Fulton Hogan agree in writing.

Fulton Hogan will provide MH's Representative with an agenda prepared in consultation with MH's Representative for each meeting of the PCG prior to each meeting.

The role of chairperson for meetings of the PCG will alternate between the Project Manager and MH's Representative with MH's Representative to chair the first such meeting.

Unless otherwise agreed, the chairperson of a meeting of the PCG will be required to give all members of the PCG (and any other person nominated by MH's Representative) minutes of the meeting within 2 few days after the meeting.

### 18.3 Senior Project Group Reviews

The Senior Project Review Group (SPG) comprises:

- i. MH's Representative;
- ii. Fulton Hogan's Representative;
- iii. a senior representative of RMS as notified by RMS to Fulton Hogan via MH from time to time; and
- iv. a senior representative of the Fulton Hogan as notified by the Fulton Hogan to MH from time to time.

The functions of the Management Review Group include:

- reviewing the progress of the Project Works;
- reviewing conformity with the Quality Plan;
- considering any issues arising out of the execution of the Contractor's Work;
- considering the Monthly Key Result Area Reports and Separate Monthly KRA Reports;
- considering any matters which the PCG refers to the SPG; and
- considering, and using its influence and guidance to assist in resolving, any issues identified by or referred to the SPG.

The SPG will meet on a regular three-monthly basis, immediately after a PCG meeting, or such other regular period as MH, RMS and the Fulton Hogan agree in writing; and at other times which any member of the SPG requires, where that member provides at least 2 days' prior written notice to the other members of the SPG.

SPG will be required to agree and document the procedures relating to meetings of the SPG, including:

- A. the requirements for and timing of distribution of:
  - agendas; and
  - meeting minutes; and
- B. chairing of the Management Review Group meetings.

#### 18.4. Monthly Reporting

Each month, the Site Team is required to review and report upon the application of the System to ensure its continuing suitability and effectiveness in meeting Client expectations, applicable standards, legislative and regulatory requirements, internal management systems and Company Policy as per [Project Monthly Reporting Procedure](#).

To do this effectively, the Project Manager is required to report the monthly financial (Job Status Review) and non-financial elements (Green Papers) to the General Manager. The General Manager then is to distribute the monthly reports to relevant Line Managers as applicable.

The information in these monthly reports are then reviewed by Fulton Hogan Senior Management.

The monthly reports are then to be forwarded to the General Manager and onto Senior Executives.

In addition, another monthly report is to be prepared by the Project Manager for the Client Representative. This report is an extended version to the above mentioned Fulton Hogan Report to review the status of the project.

#### 18.5. Review Output

Outputs from Project Review Meetings will be recorded and will be as follows:

- Resource and training needs;
- Improvements to Business Management System and processes; and
- Improvement of product or service related to Client requirements.

The review output and applicable recommendations are then to be forwarded to the General Manager and onto Senior Executives as required.

### 19. Client Satisfaction

Client requirements are to be determined prior to contract planning stages. System Procedures used to assess Client requirements to include:

- Reviewing tender documents; and
- Liaising directly with client via meetings.

Client perception to be monitored regularly to identify their changing needs. System Procedure used to monitor Client perception to include:

- NCR Forms;
- Client Feedback Reports;
- Partnering and Project Meetings; and
- Media Reports.

Fulton Hogan Construction's Project Team to avoid litigation with the Clients over contractual disputes, and that such an extreme measure will only be reserved as a last resort when all other dispute resolution strategies fail to reach an amicable solution.

All disputed issues are to be resolved at the site level by the Project Manager. However, where disputes arise that cannot be promptly resolved at the site level; Senior Management is required to get involved to determine the best approach to resolve issues.

Fulton Hogan Construction has established an external feedback process that is aimed at providing Fulton Hogan's senior management with external reports issued by its clients and subcontractors assessing Fulton Hogan's performance as well as reviewing, identifying and analysing deficiencies reported in Fulton Hogan's management practices.

Records of Client feedback reports are to be reviewed, analysed, collated, and maintained at Head Office. Issues of concern raised through the feedback reports are to be identified and reported to the General Manager for assessment and action.

## 20. Internal and External Audits

To ensure the Management System in this project is being interpreted and applied correctly, is effective and that any required corrective action is implemented, audits are to be undertaken in accordance to [Audit Procedure](#).

External audits can be arranged for critical subcontracted activities as and when deemed necessary by Fulton Hogan Construction, MH, IV or by RMS. Any external audits deemed to be required on subcontracted activities are to be identified in Audit Schedule that is appended to this Plan.

External audits are generally to be limited to off-site technical compliance audits that are aimed at verifying that the product being produced by the subcontractor is in compliance with specified contractual requirements. Quality System compliance audits are not to be arranged for subcontractors operating under a third party recognised Quality System. However, an audit may be arranged by Fulton Hogan if the reliability of the subcontractor's product or service is in question due to the nature and frequency of the nonconformities identified in their works.

Subcontractors and suppliers compliance with statutory, specified and planned safety and environmental requirements is to be monitored and verified through daily monitoring in addition to the following:

- Regular site inspections; and
- Fulton Hogan Construction internal audit process which incorporates inspections targeting all the site construction works including subcontracted activities.

It's the responsibility of the Quality Manager to arrange for such audits to be undertaken, and to initiate corrective and preventive action to ensure that the intent of the Management System is met.

The General Manager has an overall requirement to review the Integrated Management System for conformance with the Company Policies and Objectives of the project and the Company on behalf of the Managing Director.

### Inspection and Audit Schedule

Internal systems assessments are to be scheduled on the basis of the status and importance of the activity to be audited. They are to be carried out by personnel trained in how to conduct an audit and independent of those having direct responsibility for the area being audited.

This Project is to be audited in accordance to planned Audit Schedule that is appended to this Plan in order to:

- Check for compliance with the Fulton Hogan Commitments, Policies, Standards and Project Management Plans;
- Check the operation of the Management System to evaluate the effectiveness of the Management System as applied to this Project;
- Assess the conformity of the products or services with the specified technical requirements; and
- Evaluate how effectively work process controls are implemented in practice.

The planned Audit Schedule is to be maintained throughout the duration of this Project. For each audit, the auditor to write a report listing the findings required. An appropriate timeframe for completion of each corrective action is to be mutually agreed upon by the auditor and the Project Manager being audited.

The inspection schedule is addressed within the OHS&R Management Plan.

### Adjustment to Inspection & Audit Schedule

The planned Project Audit Schedule is to be reviewed by the relevant functional manager, and should be updated as and when deemed necessary as a result and outcome of the latest internal/external audit reports or can be scheduled for critical subcontracted activities.

## 21. Measurement, Analysis and Improvement

For the Purpose of this Plan, the process for measurement and improvement, including corrective actions, is addressed in the QMP.

## 22. Internal Communications

### 22.1. Internal Informal Communications

With the core project team located on site, face to face communication will occur on a daily basis.

Creating a culture that promotes shared understanding, a respect for alternate views and active listening, will encourage team members to engage in an open and honest manner. This will set the foundations for increased levels of collaboration, innovation, and overall team work. This culture extends to any informal communications and interfaces had with the Client.



The Project Manager will focus on creating an enabling environment to support and sustain the required culture to reduce any barriers to effective communication, informal or otherwise.

## 22.2 Internal Formal Communications

Internal Meetings <b>Meetings</b>	Frequency	Audience	Owner
<b>*Project Team Meetings</b> (Operational, Project Team... etc.) To review status of the project and plan for the upcoming activities	Weekly	On- Site Project Team And others as required	Project Manager
<b>Toolbox Meetings</b>	Weekly	On-Site workforce	Superintendent/Foreman
<b>OHS&amp;R Safety Committee</b> (If elected)	Monthly	Safety Committee	Elected Chairman of the onsite Safety Committee
<b>Monthly Project Review</b> To review the status of the project with the General Manager – Eastern Construction	Monthly	On-Site Project Management Team General Manager – Eastern Construction	Project Manager

\*Project Team Meetings can be combined with the Client's Project Team Meetings into one.

### 22.2.1 Internal Reports

Report	Objective	Frequency	Owner
<b>Monthly Project Progress Report*</b>	Provide an update on the key aspects of the project, (time, design, quality, safety, environment, issues, community) on a Monthly Basis for review and action	Monthly	Project Manager
<b>Monthly Cost Reports</b>	Provide an update on the financial position of the project for review and action	Monthly	Project Manager
<b>Weekly Safety Statistics</b>	Provide an update on the Safety Performance for review and action	Weekly	Safety Coordinator

\*Monthly Project Progress Reports are the same as the Client Monthly Reports

### 22.2.2 Internal Alerts

Alerts are a means to update the project team with industry information, warnings or guidelines on environment, health and safety and quality.

They are categorised by:

- Green Alerts (Environment)
- Red Alerts (Health and Safety)
- Quality Alerts

The alerts will be posted in prominent locations on site and will be addressed in relevant Toolbox Meeting and/or Daily Prestart Meetings, as required.

#### 22.2.3. Tool Box Meetings

The Project Manager is required to ensure that Toolbox Meetings are undertaken on site on a regular on need basis using [Toolbox Agenda](#). This is further described in the WHS Management Plan.

#### 22.2.4. Daily Pre-start Briefings

Pre-start briefings are to be carried out by each works supervisor (including sub-contractors) crew at the start of each shift. This is further described under the WHS Management Plan.

#### 22.2.5. Other Meetings

The project team is also required to consult with the workforce on regular basis in accordance to the WHS Legislation 2011, NSW State Government's OHS Act 2000 and OHS Regulations 2011, NSW WorkCover Authority Code of Practice "OHS Consultation".

The consultation method is required to provide employers with various consultation methods available to them to ensure compliance with the OHS Regulations. This is further described under the Occupational Health Safety and Rehabilitation Management Plan.

Review meetings will be scheduled when serious issues of concerns are internally reported or are raised by MH or RMS as described under the Management Review section of this plan.

#### 22.2.6. Notice Boards

The site notice board is a significant tool in communicating important information to employees and subcontractors on site (meeting rooms and crib rooms). The notice boards are to have the following information on it; or be readily available for all employees, and subcontractors:

- Company Commitments and Policies
- Relevant Company Standards
- Site Rules
- Latest Toolbox Minutes
- Latest OHS Committee Minutes
- Emergency Response Plans and Maps

- Emergency Contact List
- List of First Aiders
- List of OHS Coordinators/Representatives
- WorkCover Posters
- Community Relations Protocols
- Red (safety and IR), Green (environmental) and Blue (Quality) Alerts
- A map showing the location of the nearest hospital and/or medical facility
- Other miscellaneous site specific documents

## 23. External Communications

### 23.1. Media

All media requests are to be referred to the authorised HML representative in accordance with the [Media Management Procedure](#). Under no circumstances will any Fulton Hogan employees, including the Project Manager to talk to the media. This is also addressed in the CIP.

### 23.2. Communicating and Liaising with WorkCover

Where there is a notifiable incident for a dangerous occurrences or serious incident, in line with incident notification requirements in the Occupational Health Safety & Act, the Project Manager shall report the incident to WorkCover after discussing the matter with the State Safety Manager and the General Manager – Eastern Construction. This is further described under the Occupational Health Safety and Rehabilitation Management Plan.

### 23.3. Communication and Liaising with OEH and EPA

All communications with the OEH and EPA is required to be done in accordance with the CEMP. HML will be advised by Fulton Hogan in advance of any proactive contact to OEH or EPA and alternatively notify HML of any contact by OEH and EPA.

### 23.4. Communicating and Liaising with Services and any other Authorities

Where there is a correspondence with a services and any other authority, the Client Representative and the Independent Verifier are required to be made aware of such correspondence through monthly reports, minutes of the meeting, verbal (followed by confirmation in writing) etc., as required and in some circumstances, the Client Representative is required to be consulted prior to approaching a service provider and any other authority for the works throughout the duration of the Project.

When it comes to engagement of Services and any other authorities, the Client is required to be consulted prior to the engagement at all times in accordance to [Subcontracting, Purchasing and Hiring Procedure](#).

### 23.5. Communicating with People Affected by the Work

The Project Manager is responsible for maintaining a public feedback register as a database for capturing and tracking community/stakeholder complains/enquiries.

This is further addressed in the CIP.

#### 23.5.1. Letters, Circulars, Facsimiles and Emails

Communications and the distribution of up to date information is key to the success of this project, and as such for this Project, Fulton Hogan will be using an online collaboration tool – ProjectCentre.

The ProjectCentre email address ([7yz@projectcentre.net](mailto:7yz@projectcentre.net)) is to be CC'ed to all external correspondences outside ProjectCentre.

For the purpose of this Plan, this is further addressed under Documents and Records Management Plan.

#### 23.6. Other Information

Final reports or any submissions that are required to be submitted by Fulton Hogan to any authority must be simultaneously submitted to the RMS. Reports received from the same will also be forwarded when received by Fulton Hogan.

### 24. Crisis Management

During a time of crisis when the Fulton Hogan brand and reputation are at risk a crisis management strategy will be developed in consultation with the National Communications Manager in accordance with the Fulton Hogan's [Crisis Management Procedure](#).

No public comment will be provided by Fulton Hogan relating to the project, the client or any related matter without written authorisation by HML.

### 25. Procedures

The Following related Procedures are available through Fulton Hogan Intranet and are available to anyone outside Fulton Hogan upon Request.

[Project Launch Procedure](#) describes the process by which a project is launched and the processes and procedures approved and implemented on the project.

[Site Establishment Procedure](#) describes how the site is to be established after all the issues impinging on the operation of the site have been considered and the operation pre-planned so that the mobilisation, on-going operation and demobilisation of the site can be carried out in a cost effective, safe, environmentally sensitive and efficient manner.

[Head Contract Management Procedure](#) outlines the structure, purpose, management and administration of head contracts and to ensure the contract is reviewed for commercial and technical risks as well as to ensure the obligations of both parties are clear, understood and agreed.

Cost Planning and Forecasting Procedure describes how the Project Estimate is broken down in accordance with the approved work breakdown structure (WBS), entered into the cost control system, and project costs are properly allocated, managed, collected, analysed, forecast and reported.

Planning and Programming Procedure describes how a uniform approach is taken to the planning, programming and monitoring of projects for control and recording of progress against a consistent base for contractual and performance comparisons.

Subcontracting, Purchasing and Hiring Procedure describes the manner in which all works carried out, and material, plant and equipment supplied and purchases by the Division, conform to specified requirements and a uniform approach is applied in dealings with Subcontractors and Suppliers.

Site Diary outlines the process for recording important events and problems on site on a daily basis.

Control and Supervision of Works Procedure establishes a mechanism to identify and manage risk in order to ensure optimisation of a project outcome.

Project Finalisation Procedure describes all matters required to finalise a project are closed off in the most efficient and effective manner and lessons learned from the project are recorded for future reference.

Document Control - Document Data and Records Procedure describes the control methods for the creation, review, distribution, storage, filing, preservation and accessibility of relevant documentation, records and electronic data, whether originating from within Fulton Hogan or externally.

Project Documents and Data Control Procedure outlines the steps to be taken to control the review, distribution and filing of all project-specific documentation and data, whether originating from within the Division or external to it.

## 26. Terms and Definitions

**Competent Person:** A person who has acquired through training, qualification, or experience, or a combination of these, the knowledge and skills needed to qualify the person to perform the task required.

**Contractor:** Fulton Hogan Construction Pty Ltd.

**Contract:** An agreement between two parties for the supply of goods or services for an agreed sum.

**Customer/Client:** The person or organisation for whom contract works are being undertaken (the party responsible for payment). The customer also includes interested parties such as regulatory bodies, local residents, etc.

**Hold Point:** A point in the construction or verification process beyond which work may not proceed without receiving authorisation from the appropriate party.

**Inspection:** Activities such as measuring, examining, testing or gauging one or more characteristics of a product, service, process or activity and comparing these with specified requirements to determine conformity.

**Inspection and Testing:** Activities such as measuring, evaluating, testing or gauging one or more characteristics of a product or process and comparing these with specified requirements to determine conformity.

**Interested Parties:** Individuals, groups or organisations who are concerned with or affected by the success or failure of an issue or an activity being carried out by others.

**Internal Subcontractor:** Any Fulton Hogan Pty Ltd department that subcontracts with another Fulton Hogan department to participate in the execution of part or all of the works.

**Method Statement:** A document which provides the assigned workforce with details on who, what and how a specific product, process or activity will be carried out, inspected and tested, etc to ensure conformance with specified or statutory requirements.

**Monitor:** To check, supervise, observe or record progress of an activity, action or system on a regular basis in order to verify compliance, conformance or changes from accepted requirements.

**Non-compliance:** Failure to act implement or comply with planned or specified requirements.

**Procedure:** A document that specifies the purpose and scope of an activity or a process which incorporates a clear allocation of responsibilities for accomplishing tasks, duties or actions required.

**Process:** A series of interrelated activities or tasks which result in a manufactured product or constructed facility.

**Supplier:** A third party who supplies goods or services to Fulton Hogan.

**Verification:** The formal process of documenting and confirming compliance and conformance to specified requirements.

**Witness Point:** A point in a construction or verification process at which an activity is to be observed by the customer's representatives within a specified date and time. Work shall not proceed beyond the witness point until the specified inspection period has lapsed.

## 27. Related Standards/Legislations/Regulations/Guidelines/Codes

The following reference documents are to be used for the application of this document. For dated references; only the edition cited applies. For undated references; the latest edition of the referenced document (including any attachments) applies.

- AS/NZS ISO 9000: 2006 - Quality Management System – Fundamentals & Vocabulary
- AS/NZS ISO 9001: 2008 - Quality Management System – Requirements
- AS/NZS ISO 14001: 2000 - Environmental Management Systems
- AS/NZ 4801: 2004 - Occupational Health & Safety Management Systems
- WHS Act 2011
- Various Environmental Act
- Security of Payments Act
- NSW State Government OH&S Regulations 2011

- NSW State Government Guidelines – Various
- Others depicted in various Plans

## 28. Appendices

- Appendix A – Organisation Structures
- Appendix B – Duties & Responsibilities Matrix
- Appendix C – Audit Schedule

## Revision History

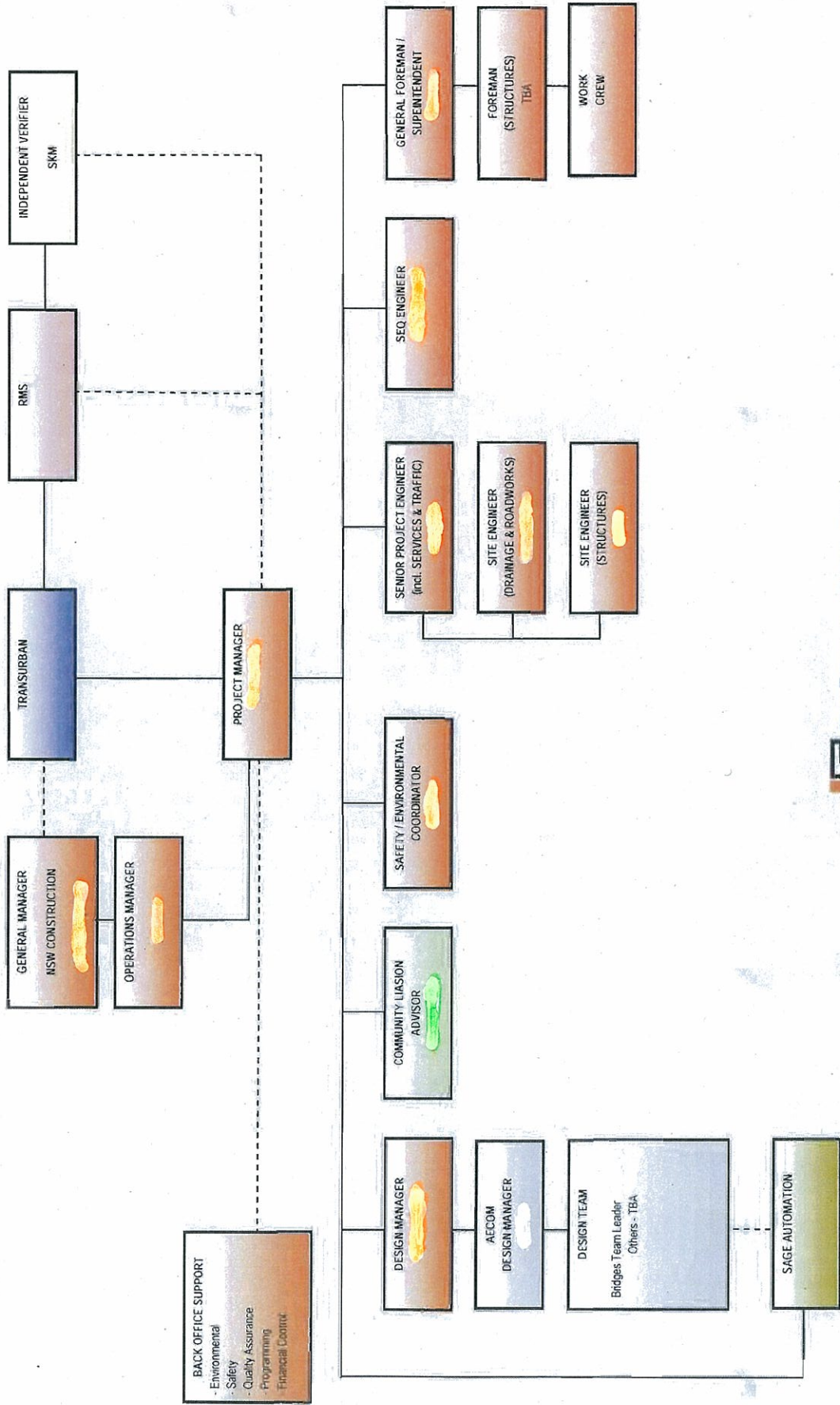
Rev	Revised By	Reviewed & Approved By	Date	Description/Summary of Changes
0	S. Aga	A. Vasilaras	02/11/12	Initial issue for use.

IPMP Appendix A: Project Organisation Structure





# M2 UPGRADE - LANE COVE ROAD EASTBOUND ON-RAMP



## IPMP Appendix B: Duties and Responsibilities Matrix

Duties & Responsibilities Matrix - General

Responsible	Ensures the task is done	Project Manager	Project Managers	Senior Project Engineer	Project Engineer	Site Engineer / Undergraduate Engineer	Quality Manager	Document Controller	Quality Officer	Environmental Manager	Environmental Officer	Safety Manager	Safety Officer	Design Manager	Community Liaison Manager	Community Liaison Co-ordinator	Traffic Manager	Traffic Officer	Services/RailCorp Manager	Survey Manager	Programmer/Planner	Landscaping Rep.	Geotechnical Officer	Superintendent	Senior Foreman	Foreman	Leading Hand	Commercial Manager	Accounts Administrator	Accounts Clerk	Receptionist	Procedure / Comments					
Allowed	Has the authority of the task	A	R	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I						
Consulted	Those whose opinions are sought, and with whom there is two-way communication																																				
Informed	Those who are kept up-to-date on progress, often only on completion of the task or deliverable, and with whom there is a just in-time communication	R	C	C	I	I	C																														
Task / Function		R	C	I	I	C																															
Assign specific duties to the Site Management Team to implement the requirements of the Fyffon Hogan system.																																					
Site duty																																					
Coordinate with client and subcontractor/supplier representatives concerning technical, commercial, contractual and other matters identified during the works		R	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A			
Action correspondence with external authorities and Stakeholders		R	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A			
Action correspondence with subcontractors / suppliers		R	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A			
Action correspondence with Client Representatives		R	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A			
Identify all the hazards associated with the various construction periods and work site environment, and carrying out risk assessments on these hazards		R	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A			
Document the proposed hazard control measures through a Risk Register - and review and update the Plan to reflect the risk of new or existing hazards based on the impacts from construction site conditions and contractor activities		R	I	I	I	A																															
Arrange regular meetings with Client Representatives		R	A	A	A																																
Manage close out of action in the Actions Register		C	R	C	A	A	A																														
Coordinate and review values of consent / licences identified in the contract documents		R	A	A	C	C	C																														
Action Contract Program		A	A	A																																	
Prepare work / task specific Programs		C	A	A	A	A	I																														
Plan and deliver works, inform the Project Team on a daily basis of the next day's planned work activities and resource requirements consistent with any 'the turning' of the short-term Construction Program		C	C	C	C	C	C																														
Ensure that project resources (labor, material, subcontractors) are optimised across site		I	I	I																																	
Issue and coordinate technical issues and submissions with subcontractors and suppliers		A	R	A	A	A	A																														
Coordinate and review designs required by Fyffon Hogan and temporary works Design / Approval its subcontractors for the construction of temporary structures		C	C	C	C	C	C																														
Submission of documents for the approval / review by the Client Representative		R	A	A	C	C	A																														
Establish and maintain the Project Procurement Plan		A	C	C	I	I																															
Approve the Project Procurement Plan		R	C																																		
Administer the procurement activities required for the project including the management of all commercial and contractual aspects of the subcontract		A	A	C																																	
Prepare project specific identified subcontract conditions which incorporate Fyffon Hogan's Safety, Environmental and Quality Management conditions as well as the relevant Head Contract conditions		A	C	C																																	
Establish and update cost coding system that can identify and capture the project's actual and forecast expenditures		A	C	I	I																																
Manage risk & opportunity across the project		A	R	A	A	A	A																														
Prepare requests for quotation and associated documents		A	A	A	A	A	A																														
Send request for quotation to subcontractors and suppliers		A	C	C																																	
Approve the Short Term Agreements with sub-contractors and suppliers		A	C	R	C	C	I																														
Approve subcontract documents defining the subcontracted scope of work and special conditions of subcontract		R	C	C	C	C	C																														
Sign subcontractor / supplier rayworks		I	C	C	C	C																															
Sign subcontractor / supplier (Variation Orders)		R	C	C	C																																
Evaluate subcontractor SVMS, Plans and ITPs		A	R	A	A	A	A																														
Evaluate subcontractor VC insurance and indemnification plan		C	C	C	I																																
Coordinate the procurement of materials, plant and equipment required by Fyffon Hogan to carry out the works, and verifying that the procured items will comply with the contract specifications and referenced standards, methods, codes and Regulations. Refer to the referenced standards, methods & Codes and Regulations. Refer to the		C	C	C	I	C																															





Responsible. Ensures the task is done	Project Manager	Project Managers	Senior Project Engineer	Project Engineer	Site Engineer / Graduate Engineer / Undergraduate Engineer	Quality Manager	Document Controller	Quality Officer	Environmental Manager	Environmental Officer	Safety Manager	Safety Officer	Design Manager	Community Liaison Manager	Community Liaison Co-ordinator	Traffic Manager	Traffic Officer	Services/RailCorp Manager	Survey Manager	Programme/Planner	Landscaping Rep.	Geotechnical Officer	Supintendent	Senior Foreman	Foreman	Leading Hand	Commercial Manager	Accounts Administrator	Accounts Clerk	Receptionist	Procedure / Comments						
Consulting Those whose opinions are sought, and with whom there is two-way communication	C	A									A							R					C	C	C												
Informed Those who are kept up-to-date on progress, often rely on completion of the task or deliverable, and with whom there is just one-way communication	C	A									A							R					A	A													
Ensure that 'control' that Before You Dig, Drawings and other drawings of existing services are available and reviewed to ensure that services are not located prior to proceeding with excavation works. Issue with safety instructions in regard to dealing with existing services.			A	A							I												I	I	I												
Issue Excavation Permits			A	A							R	A											I	I	I												
Issue Hot Work Permits			A	A							R	A											I	I	I												
Issue Confined Space Permits			A	A							R	A											I	I	I												
Ensure that signifiers check their authority for vehicles, and record the results of their checks on a daily sign-off sheet.	A	A	A	A	A						A											R	A	A	A	A											
Maintain innocuous regulatory (SMMAS, FFE, MSDS, Permits etc)	A	A	A	A	A			A			R																										
Maintain equipment certification records, register (lifting, the weighmaster, etc etc)	A	A	A	A	A			A			R																										
Conducting spot checks of noise-obstruction plant and equipment?								A			R																										
RF for work administration	R										A												C	I	I												
Participate in the site OH&S committee meetings	R										A												A	C	I	I											
Request MSDS documentation from subcontractors and suppliers.		A	A	A	A	A		A			R												A	A	A	A											
Review and register MSDS		A	A	A	A	A		A			R												A	A	A	A											
Ensure that storage and handling of hazardous products are carried in accordance with the details provided in the MSDS documents.	C	A	A	A	A	A		A			R																										
Conducting MSDS Audits on regular basis		A	A	A	A	A		A			R																										
Ensure that the site is fully demarcated a professional and safe working environment	A	A	A	A	A	A		A			R																										
Ensure amenities are compliant	A	A	A	A	A	A		A			R																										
Ensure that the construction works are well safe and secure at close of each shift	A	A	A	A	A	A		A			R																										
Installation of traffic control measures (light, cones, interlocking etc.)	A	A	A	A	A	A		A			R																										
Maintain traffic control records		C									A																										
Submission of traffic control plans	C	R									R																										
Carry out basic task competency assessments of employees	C										R																										
Attend with return to work and rehabilitation processes	C										R																										
Manage Rehabilitation occurrences	C										R																										
Ensure that all subcontractors are aware that they are required to comply with the Project Environmental Management Plan and associated documents	C	A	A	A	A	A		A			R																										
Communicate change in environmental legislation	C	I	I	I	I	I					R																										
Conduct environmental awareness refresher training based on environmental risk assessment and turnover of project personnel	C	I	I								R																										
Train relevant project personnel on Environmental Work Instructions and Procedures prior to undertaking the activity	C	C	C	C	C	C					R																										
Conduct regular environmental inspections of the Project including all subcontractor activities	A	C	A	A	A	A		A			R																										
Record unresolved issues in the Integrated Actions Register	I	C	C	A	A	A		A			R																										
Review the Environmental Aspects and Impacts Register on a regular basis and / or when there is a major change in construction activities, or when there is a change in the Environmental Management Plan and associated documents	C	C	C	C	C	C					R																										
Review environmental procedures, work instructions, forms and risk assessments to ensure current and relevant	A	A	A	A	A	A		A			R																										
Plan and update Progressive Erosion and Sediment Control Plans (ESCPs) for work areas, supporting the primary ESOP	I	C	C	A	A	A		A			R																										
Ensure that environmental erosion and sediment control measures are installed correctly on site (ie. in accordance with the Blue Book)	I	I	I	I	I	I		A			R																										
Conduct subcontractor environmental audits	C	C	C								R																										
Complete environmental work method statements (EWSMs) as identified in contract documents	C	C	C								R																										
Establish an effective waste minimisation and recycling program and ensure that all on site staff and all subcontractors are effectively implementing the program (e.g. separate waste bins)	I	I	I	I	I	I		A			R																										









## IPMP Appendix C: Audit Schedule

This Audit Schedule has been determined in accordance with the state audit schedule. The table below details the type and proposed date of the audit, with the actual date being inserted upon completion.

For the purpose of this schedule a Systems Audit covers the operation of the management system in order to evaluate the effectiveness of the management system as applied to this Project. And a Technical Audit covers products or services to assess the conformity of the product or service with the specified technical requirements as well as the work process control to evaluate how effectively work process controls are implemented in practice.

### Internal Audits

Organisation	Audit Date		Auditor (NSW MP)	Audit Scope
	Proposed	Actual		
Fulton Hogan (site)	July/Aug 2013		Quality Manager	Systems and Technical Compliance for Site Establishment
Fulton Hogan (site)	July/Aug 2013		Safety Manager	Technical Compliance (Safety, Traffic)
Fulton Hogan (site)	July/Aug 2013		Environmental Manager	Technical Compliance (Environment)
Fulton Hogan (site)	July/Aug 2013		Regional IR/HR Manager	Technical Compliance (Training, Aboriginal & IR )
Fulton Hogan (site)	Jan/Feb 2015		Quality Manager	Systems and Technical Compliance (Quality) and Follow Up
Fulton Hogan (site)	Jan/Feb 2015		Safety Manager	Technical Compliance (Safety, Traffic) and Follow Up
Fulton Hogan (site)	Jan/Feb 2015		Environmental Manager	Technical Compliance (Environment) and Follow Up

### Independent Verifier (IV) Audits

Organisation	Audit Date		Auditor	Audit Scope
	Proposed	Actual		
Fulton Hogan (design)	Will be provided on receipt of a Programme and identification of Design Lots		Independent Verifier	To evaluate the effectiveness of the design management system as applied to the project.

Fulton Hogan (site)	Will be provided on receipt of a Programme and identification of Design Lots		Independent Verifier	TBC

### Hills Motorway/RMS Audits

Organisation	Audit Date		Auditor	Audit Scope
	Proposed	Actual		
Fulton Hogan (site)	May be conducted at any time		MH/RMS	Audit Timeline and scope will be included when available from MH/RMS.
Fulton Hogan (design)	May be conducted at any time		MH/RMS	Audit Timeline and scope will be included when available from MH/RMS.

### Third Party Audits

Organisation	Audit Date		Auditor	Audit Scope
	Proposed	Actual		
Fulton Hogan (site)	May be conducted at any time		NCSI International	TBC
Fulton Hogan (design)	May be conducted at any time		NCSI International	TBC
Fulton Hogan (site)	May be conducted at any time		FCS	TBC

### Traffic Staging Audits

Organisation	Audit Date		Auditor	Audit Scope
	Proposed	Actual		
Fulton Hogan (site)	Immediately upon implementing each TCP as indicated on the Construction Program		TBC	TBC

Appendix P - Appendix 36 to Exhibit A to the Upgrade Project Deed

**Appendix 36 Initial Environmental Management Project Plan**





# Initial Construction Environmental Management Plan

**PROJECT: M2 LANE COVE ROAD ON RAMP UPGRADE**  
**CONTRACT No.: \*\*\*\*\***

**CONTROLLED COPY NO: e-copy**

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Copy No.	Issued to	
1	Fulton Hogan Construction	Project Director
2	Client – The Hills Motorway	Project Authorised Delegate

Originated and revised by: Irina Kliger - Environmental Manager (Eastern Construction)	Reviewed and authorised by: Arthur Vasilaras – Project Manger
_____ (Signature/Date)	_____ (Signature/Date)

Fulton Hogan Construction Pty Ltd (ABN 46 010 240 758), L3, 61 Dunning Avenue, Rosebery, NSW 2018

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## Acronyms

CAMs	Case and Action Management System
CCLP	Construction Community Liaison Plan
CEMP	Construction Environmental Management Plan
CEMS	Construction Environmental Management System
CRM	Community Relations Manager
CTP	Compliance Tracking Program
EIS	Environmental Impact Statement
EPRP	Emergency Preparedness and Response Plan
EMR	Environmental Management Representative
EMS	Environmental Management System
ERG	Environmental Review Group
ESR	Environmental Site Representative
ESAM	Environmentally Sensitive Areas Maps
ESCP	Erosion and Sediment Control Plan
EWMS	Environmental Work Method Statement
PMP	Project Management Plan
RMS	Roads and Maritime Services (formerly Roads and Traffic Authority)

## 1. Introduction

### 1.1. Purposes and Scope

This Initial Construction Environmental Management Plan (CEMP) describes the environmental management processes and environmental controls that Fulton Hogan will apply during construction of the M2 Lane Cove Road On Ramp Upgrade (the Project).

Fulton Hogan recognises that the project construction activities will result in some adverse impacts on the environment. The purpose of this CEMP is to ensure that such activities are undertaken in an environmentally responsible manner and that any unavoidable adverse impacts on the environment are minimised.

It is designed to satisfy the requirements of Fulton Hogan's Integrated Management System (IMS) and AS/NZS ISO 14001:2004. This CEMP will be used as a working document to ensure that commitments and obligations included in the Lane Cove Road Ramp Design and Construction Deed, Project Approval (to be determined) and the RMS G36 specifications are understood and implemented by all construction staff, including sub-contractors.

### 1.2. Project Overview

The M2 Lane Cove On Ramp Project is a Design and Construct (D&C) Project, which involves designing and constructing a new eastbound on ramp from Lane Cove Road to the M2 Motorway at Macquarie Park with motorway widening between the new ramp and the existing Delhi Road eastbound off ramp.

Key features of the project are:

- A new on-ramp from the southbound carriageway of Lane Cove Road to the eastbound carriageway of the M2 Motorway.
- Widening of the eastbound carriageway of the M2 Motorway by one additional lane for around 600 metres from the new on-ramp extending to the beginning of the existing eastbound Delhi Road off-ramp.
- Widening of the Wicks Road Bridge to facilitate the additional eastbound lane.
- A new toll point at the on-ramp.
- Additional traffic management systems (including an over-height detection system using existing Variable Message Signage and Closed Circuit Television (CCTV) coverage of the new on-ramp and alterations to the Intelligent Transport Systems.
- Finishing works including line marking, lighting, signposting, site clean-up, restoration, landscaping and revegetation of areas.

### 1.3. Project Environmental Assessments and Planning Approvals

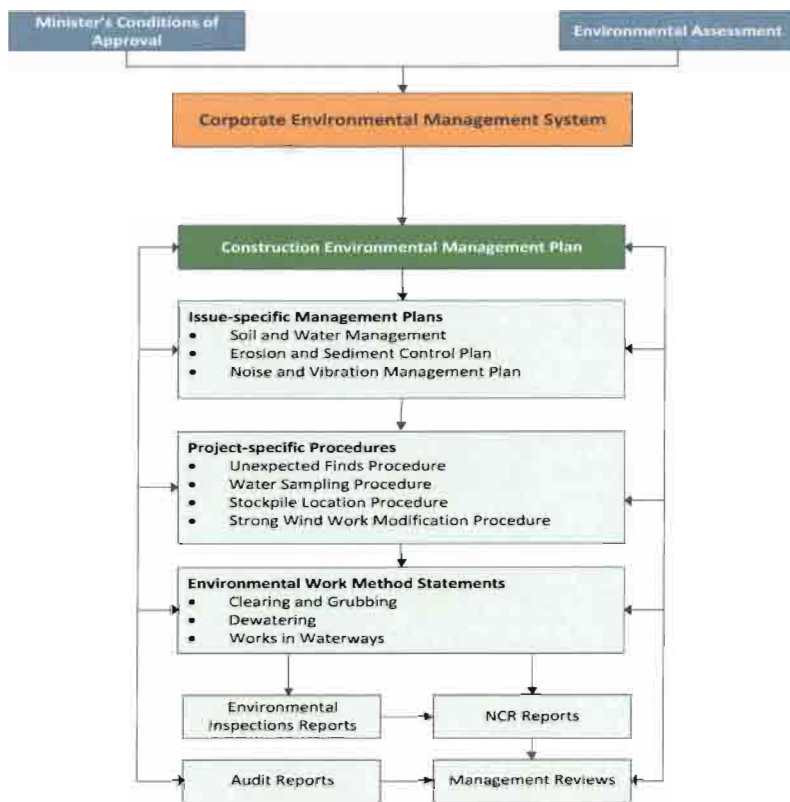
The project was originally assessed and approved under Part 3A of the EP&A Act that was repealed in 2011. However, under the transitional provisions the approved Part 3A projects, such as the M2 Upgrade, were defined as 'transitional Part 3A projects' to which Part 3A continued to apply despite its repeal.

RMS then sought to modify the existing M2 Upgrade Project approval under section 75W of the EP&A Act because the construction and operation of the proposal would not be consistent with the existing approval. RMS appointed AECOM to prepare a modification environmental assessment that was completed in August 2012. A draft Modification of Minister's Approval was subsequently issued under section 75W of the EP&A Act.



## 2. Construction Environmental Management System Overview

The Construction Environmental Management System (CEMS), consistent with the requirements of *AS/NZS ISO 14001:2004 Environmental management systems – requirements with guidance for use* and the contract environmental specifications G36, G38 and G40 has been developed for the Project. The CEMS consists of this Construction Environmental Management Plan (CEMP), the issue specific plans and other supporting documentation. The structure of the CEMS is shown in **Figure 2-1** below.



**Figure 2-1. CEMS**

Structure

## 2.1. Environmental Policy

The Commitment to Sustainability in combination with Fulton Hogan's Mission and General Principles fulfils the requirement of AS/NZ ISO 14001 and defines the Company's environmental policy.

A copy of Fulton Hogan's Commitment to Sustainability is included in Appendix A.

## 2.2. Construction Environmental Management Plan

This CEMP is a key component of the project-specific EMS. It describes its main elements and provides references to other relevant plans, procedures and work method statements that together form a systematic approach to managing environmental risks associated with the works under the contract.

The CEMP has been prepared to meet the required standards of environmental management during the project implementation. It is a 'live' document that will be regularly reviewed and updated to ensure its continuing suitability, adequacy and effectiveness.

The objectives of this CEMP are as follows:

- To provide a framework for achieving the outcomes outlined in the Project environmental assessment
- To describe the systems and processes that will ensure compliance with relevant legal and other requirements
- To detail environmental monitoring, reporting and auditing requirements for the project
- To outline environmental roles and responsibilities during Project activities, and
- To provide a basis for project induction and environmental awareness training.

This CEMP interfaces with the other associated Plans for the Project, which together describe the proposed overall project management system for the Project.

The following agencies will be consulted when preparing the final CEMP for the project:

- NSW Environmental Protection Authority
- National Parks and Wildlife
- DPI Fishing and Aquaculture
- NSW Heritage Council
- Roads and Maritime Services
- Lane Cove Council.

## 2.3. Issue Specific Plans

This Construction Environmental Management Plan will include issue specific sub-plans addressing significant environmental aspects and describing in detail how the critical environmental risks will be managed during the construction.

The following issue specific sub-plans form part of this CEMP:

- Soil and Water Management

- Noise and Vibration Management

#### 2.4. Environmental Work Method Statements

Environmental Work Method Statements (EWMS) will be prepared for all high-risk activities, which include but are not limited to:

- Clearing and grubbing
- Dewatering.

Fulton Hogan will develop EWMSs for the construction phase progressively. Each EWMS will involve a detailed assessment of the environmental risks associated with the proposed activity and may also contain information derived from site specific technical assessments undertaken by expert sub-consultants and have incorporated the findings of any relevant site or activity-specific reports/documents undertaken for the Project.

EWMSs will be forwarded to the Client Representative and to the relevant authorities for review and approval prior to commencement of the relevant activity. A register of all EWMSs will be maintained.

#### 2.5. Environmentally Sensitive Areas Maps

The Project construction corridor has a range of areas, either specific locations or sections of the works that are designated as environmentally sensitive. These areas are shown in the Environmentally Sensitive Areas Maps (ESAMs) that will be updated periodically throughout the life of the Project.

The ESAMs will be issued to all staff and subcontractors working on site and will be included in site environmental inductions. A complete set of the ESAMs is included in Appendix C.

#### 2.6. Procedures and Forms

Fulton Hogan has developed environmental procedures and forms to ensure CEMP is implemented and complies with all applicable legislative and project requirements during construction. These procedures provide instructions for undertaking specific activities and tasks and include but are not limited to:

- Unexpected Finds Procedure
- Fauna Rescue and Handling Procedure
- Dust Monitoring Gauge Procedure.

### 3. Planning

#### 3.1. Environmental Aspects and Impacts

The environmental aspects and impacts associated with the works under the contract were initially identified and assessed in the Project environmental assessment and include:

- Traffic and transport.
- Noise and vibration.
- Ecology.

- Urban design and landscaping.
- Heritage.
- General construction impacts including construction noise and vibration, construction traffic, erosion and sedimentation, water quality and riparian impacts.

Fulton Hogan has undertaken a risk assessment of all potential environmental impacts in accordance with its Risk Management Procedure. The results of this risk assessment are recorded in the Environmental Risk Register and included in Appendix C.

### 3.2 Environmental Objectives and Targets

When setting environmental objectives and targets for the Project, consideration was given to legal and other requirements, the Project's potential environmental impacts, available technological options, likely hazards and risks, operational requirements and the views of key stakeholder groups.

The environmental objectives and targets for the Project are set out in **Table 3-1** below.

**Table 3 -1. Project Environmental Objectives and Targets**

Environmental Aspect	Objective	Target
Noise and vibration	To minimise disturbance of residents caused by construction noise  To minimise instances of property damage from vibration generated from construction activities	Aim to not exceed the background (L90) level by more than 10 dB(A) at sensitive receivers  No instances of damage to structures caused by vibration
Soil and water quality	To minimise water pollution caused by construction activities	Zero unauthorised discharges to receiving environment
Air quality	To minimise adverse impacts resulting from dust generation	No instances of dust related complaints from the public
Contaminated land	To minimise adverse impacts resulting from contaminated land	Any contaminated material identified during the works is contained and promptly cleaned-up as per relevant legislation
Aboriginal heritage	To preserve any new items of Aboriginal significance should these be discovered during the construction works	No instances of damage to items of Aboriginal significance
Non-Aboriginal heritage	To preserve any new items of non-Aboriginal significance should these be discovered during the construction works	No instances of damage to items of Non-Aboriginal significance
Biodiversity	To minimise adverse impacts on threatened flora and fauna should these be discovered during the construction works	No instances of damage to threatened flora and fauna

Bushfire	To minimise the risk of bushfires caused by project activities	No instances of bushfires caused by project works
Waste	To minimise generation of waste from the construction activities and to maximise reuse and recycling where appropriate	10% reduction in waste to landfill from baseline data at the start of the project.
Rehabilitation	To ensure prompt rehabilitation of all completed areas	100% revegetation success rate for all complete areas.

### 3.3. Legislative Requirements

A detailed list of legal and other requirements relevant to the Project will be included in Appendix B. Any changes to the existing legislation during construction will be noted and this CEMP will be reviewed and amended accordingly.

### 3.4. Project Environmental Obligations

The Project environmental obligations are outlined in the following documents and approvals:

- Lane Cove Road Ramp Design and Construction Deed
- Project Approval
- Contract environmental specifications G36, and
- Other approvals as required.

A Compliance Tracking Program (CTP) will be developed and implemented to track and audit compliance with all Project's environmental obligations. The CTP is included in Appendix F.

## 4. Implementation and Operation

### 4.1. Staging of Construction Activities

TBC

### 4.2. Site Compound, Ancillary Facilities and Access Requirements

TBC

### 4.3. Resources, Roles, Responsibilities and Authority

The Project team's organisational structure and overall roles and responsibilities are detailed in the PMP. The key environmental roles and responsibilities for the Project team are listed in **Table 4-1** below:

Role	Responsibilities
Environmental Management	The EMR is directly responsible to Fulton Hogan's senior management for the environmental outcomes and compliance of the Project. The

Role	Responsibilities
<p>Representative (EMR)</p>	<p>EMR oversees and manages all issues associated with environment during the construction of the Project including but limited to the following:</p> <ul style="list-style-type: none"> <li>• Driving best practice environmental management in project construction activities</li> <li>• Monitoring project environmental performance and identifying opportunities for improvement</li> <li>• Be central point of contact for all regulatory authorities relating to project environmental issues</li> <li>• Providing high-level coordination and liaison between the project environmental team and other parts of the Project construction team</li> <li>• Foster the culture of high performance and achieving outstanding outcomes with the environmental team</li> <li>• Overseeing the preparation and review of the CEMP, the sub-plans and the EWMSs</li> <li>• Identifying and obtaining all necessary licences and approvals for the Project</li> <li>• Performing CEMS and CEMS compliance audits, and</li> <li>• Managing the preparation of compliance assessments and reports.</li> </ul>
	<ul style="list-style-type: none"> <li>• Advising on all environmental matters specified in G36, specification and conditions of approval</li> <li>• Liaising with the Principal and with all relevant stakeholders on environmental matters</li> <li>• Ensuring that the CEMP is established, implemented and maintained in compliance with the Project environmental requirements</li> <li>• Overall responsibility for establishing, managing, monitoring and maintaining erosion and sediment controls</li> </ul> <p>The EMR is also given the responsibility, authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur.</p>

Role	Responsibilities
Environmental Manager	<ul style="list-style-type: none"> <li>• Ensuring that all construction activities are undertaken in accordance with the CEMP</li> <li>• Carrying out regular inspections and audits of the works to ensure that environmental safeguards are being followed</li> <li>• Identifying where environmental measures are not meeting the targets set and where improvement can be achieved;</li> <li>• preparing environmental performance reports to the Principal as per G36</li> <li>• Prepare compliance reports as required by the Environmental Authorisation and other relevant licences and approvals, and</li> <li>• Delivering environmental induction training and toolbox talks for all site personnel</li> <li>• Notify RMS and relevant agencies in the event of an environmental incident and manage close-out of these</li> <li>• Assist the Communications Manager to resolve environment-related issues.</li> </ul>
Project Director	<p>The Project Director is responsible for the overall control of the Project and the CEMP. The Project Director also:</p> <ul style="list-style-type: none"> <li>• ensures resources are made available to enable the Project works to comply with the Project Environmental Documents and relevant legislation; and</li> <li>liaises with the Environmental Manager and approval authorities as required</li> </ul>
Community Relations Manager (CRM)	<p>For roles and responsibilities of the CRM refer to the <b>Construction Community Liaison Plan</b>.</p>
Project Managers and Engineers	<p>Project Managers and Project Engineers are responsible for ensuring that environmental considerations are included in the decision making process for all construction activities.</p> <p>Environmental roles and responsibilities for both Project Managers and Project Engineers will vary depending on the nature of the construction activities and the area of the Project they are responsible for but will generally include responsibilities for ensuring compliance with the CEMS, CEMP and the relevant sub-plans. They will work closely with the ESR and the Environmental Engineers when identifying and managing environmental risks associated with their respective areas of responsibility.</p>

Role	Responsibilities
Superintendent and Foreman	<ul style="list-style-type: none"> <li>• Complying with relevant environmental procedures and EWMSs</li> <li>• Ensuring all erosion and sediment controls are installed and maintained in accordance with the Progressive Erosion and Sediment Controls Plans (PESCPs)</li> <li>• Supervising sub-contractors to ensure that any work performed by external parties complies with the CEMP and relevant licence, approvals and permits.</li> </ul>
All employees and sub-contractors	<ul style="list-style-type: none"> <li>• All Fulton Hogan employees are responsible for undertaking their work in accordance with the CEMP and Fulton Hogan Environmental Policy as directed at their induction and as instructed by their supervisor.</li> <li>• All subcontractors and suppliers are responsible for ensuring that their work or product complies with the CEMP and the relevant sub-plans.</li> </ul>

#### 4.4. Competence, Training and Awareness

The following three main forms of environmental training will be provided on site:

- Site environmental induction
- Environmental awareness training, and
- Toolbox talks.

##### 4.4.1. Site Induction

Prior to commencing work on site, all Project personnel including subcontractors, attend a site induction. Where personnel are visiting, personnel attend a visitor induction.

All Project personnel, subcontractors and consultants will be required to undertake a site induction which will, as a minimum, address the following environmental topics:

- The CEMP and consequences of non-compliance with the CEMP
- The requirements of due diligence and duty of care
- Conditions of environmental licences, permits, notifications and approvals
- Location of environmentally sensitive areas
- Requirements associated with community consultation
- Incident notification and reporting procedures and procedures for dealing with damage and maintenance of erosion and sediment controls
- Boundaries for vegetation clearing and location of restricted access as well as controls in regard to clearing and/or trimming of vegetation
- Erosion and sediment controls, water quality controls and sediment basin management



- Obligations to prevent the spread of noxious weeds during construction
- Noise vibration and air quality controls
- Unanticipated Find Protocols (e.g. for unexploded ordinances, heritage or threatened species)
- Topsoil stockpile management requirements, and
- Environmental emergency response procedures.

Records of training, competency and qualifications including dates, names and trainer details, will be registered in the Inductions Register and kept with the Project Safety Manager.

#### 4.4.2 Environmental Awareness Training

Targeted environmental awareness training will be provided to individuals or groups of workers with a specific authority or responsibility for environmental management or those undertaking a high risk activity. This training will aim to achieve the level of awareness and competence appropriate to their assigned tasks.

The target groups and suggested topics are shown in **Table 4-2** below.

Target Group	Topic
Project Managers and Engineers	Content and requirements of the CEMP, the sub-plans and the EWMSs
Earthworks crews	<ul style="list-style-type: none"> <li>• Erosion and sediment control</li> <li>• Working near environmentally sensitive areas</li> <li>• Dust control</li> <li>• Stockpile management</li> <li>• Management of ASS and ASM</li> </ul>
Structures Crews	<ul style="list-style-type: none"> <li>• Management of noise activities near sensitive receivers</li> <li>• Works in waterways or in riparian areas</li> <li>• Concrete works</li> </ul>

#### 4.4.3 Toolbox Talks

A toolbox talk involves the dissemination of information to Project personnel at the field level. Generally toolbox talks generally focus on safety aspects with reference to certain Project jobs or tasks. They will also be used to disseminate environmental information. Environmental toolbox talks will cover aspects such as:

- Working in or near environmentally sensitive areas
- Dust control

- Dealing with unexpected finds (heritage, injured fauna, etc.)
- Night works.

Toolbox training will help to ensure that relevant information is communicated to the workforce and will also provide a forum for feedback on issues of interest or concern. Toolbox training will generally be prepared and delivered by a representative of the Environmental Management Team but may also be delivered by other authorised persons.

## 4.5 Communication and Consultation

### 4.5.1 Liaison with Hillis Motorway

The following two Project team members are nominated as 24 hour contacts for environmental regulatory authorities, with the authority to take immediate action to shut down any activity, or to affect any pollution control measure:

- Irina Kliger (Eastern Construction Environmental Manager) - 0488 264 613, and
- Katrina Brown (Environmental Manager) – 0409 332 151.

Upon consultation with the Environmental Manager for Eastern Construction and the Project Manager, each relevant authority will be notified immediately via the appropriate telephone number should a pollution incident occur that causes or threatens harm to the environment.

The Emergency Contacts Register listing the relevant authorities to be notified in case of an environmental emergency is included in *Emergency Preparedness and Response Plan (EPRP)*.

### 4.5.2 Complaints and Enquiries Management

Management of community related issues is detailed in the *Community Involvement Plan (CRP)*, which includes, amongst other things, protocols for the distribution of leaflets informing the community of construction events, and contact details for further information, or the registration of complaints.

### 4.5.3 Environmental Review Group

Fulton Hogan will establish an Environmental Review Group (ERG) for the Project that will include Principal's representative, the representatives from all relevant environmental stakeholders and Fulton Hogan's project environmental staff.

The ERG will operate for the duration of the construction work, and will meet at least quarterly and at any other time at the request of the Principal as issues arise.

The ERG will be used as a proactive group for planning and review of environmental issues, which may include:

- upcoming work
- sensitive issues
- opportunities
- monitoring data; and

- innovations.

To ensure prompt and effective resolution of ERG meeting actions, minutes will be taken and distributed to all ERG members.

#### 4.5.4 Hours of Work

Standard construction hours for the duration of construction are:

- 7:00am to 6:00pm Mondays to Fridays, inclusive; and
- 8:00am to 1:00pm Saturdays; and
- at no time on Sundays or Public Holidays.

The procedure for notifying the Principal and all relevant authorities in advance of any proposed extension to hours of work is included in Section 4 of the CRP.

The following activities are permitted to be undertaken outside standard construction hours without prior community liaison:

- Delivery of materials as requested by police or other authorities for safety reasons; and
- Emergency work to avoid loss of lives, property and/or prevent environmental harm.

#### 4.6 Management of Subcontractors

All subcontractors will be required to operate within and show commitment to the requirements of this CEMP and associated documents. This will also be clearly communicated to subcontractors during the subcontractor pre-award interview assessment and during the project induction.

All documentation forwarded by subcontractors will be reviewed by Fulton Hogan. Any deficiencies identified will be highlighted to the subcontractor and the subcontractor will be required to resubmit the relevant documents to Fulton Hogan for another review.

A subcontractor surveillance program will be implemented to assess the effectiveness of the subcontractor's environmental protection measures and compliance with the CEMP. In particular, subcontractors will be monitored through site inspections and the completion of checklists.

Internal audits will also be conducted and will involve the inspection of site construction works including subcontracted activities. Refer to the PMP for further details in relation to audits.

#### 4.7 Emergency Preparedness and Incident Management

Environmental incidents and emergencies and management controls for dealing with these are addressed in detail in the *Emergency Preparedness and Response Plan (EPRP)*.

The EPRP includes:

- Identification of potential environmental hazards
- Risk assessment of potential environmental emergencies
- Emergency response procedures for different emergency scenarios

- Notification requirements and emergency contacts
- Roles and responsibilities during environmental emergencies, and
- Periodic testing of the emergency response procedures.

All incidents will be recorded in Fulton Hogan's Case and Action Management System (CAMs) in accordance to Fulton Hogan's Case and Action Management Procedure and Incident Investigation, Reporting & Notification Procedure

## 5. Checking Performance

### 5.1. Environmental Inspections

The effectiveness of site environmental controls will be assessed on a regular basis. To document this, a number of checklists, registers and forms will be completed. These may include (but not necessarily be limited to) the following:

- Environmental inspection checklists
- Audit reports
- Environmental Actions Register, and
- Nonconformities (NCRs)

These will provide a means to evaluate and verify compliance with the relevant regulatory requirements and the contract environmental specifications.

EM will conduct weekly site inspections and document the results of these inspections in an *Environmental Inspection Checklist* (refer to Appendix E).

Any non-conformances identified during site inspections or through monitoring results will be investigated to determine the cause and to ascertain the necessary corrective actions. An NCR Report will be issued and managed in accordance with Section 18 of the *Quality Management Plan*.

### 5.2. Environmental Monitoring

Project environmental monitoring will comprise collection and interpretation of quantitative data to evaluate compliance and to verify the effectiveness of the environmental controls on site.

Environmental monitoring will include:

- Noise and vibration monitoring
- Dust monitoring
- Water quality monitoring, and
- Weather monitoring.

The methodology, location and frequency of environmental monitoring are further described in issue-specific sub-plans. The environmental sampling and testing equipment used on the project will be calibrated in accordance with the manufacturers' specifications and results recorded on the *Calibration Equipment Register*.

### 5.3. Environmental Nonconformities

The process for managing any environmental nonconformities will be as follows:

- All nonconformities will be raised through QAnrol and CAMs
- All nonconformities will be recorded in the Environmental Actions Register
- The status of NCRs will be recorded and monitored to ensure timely closure, and
- The negative trends will be identified and analysed and preventive actions initiated and implemented to prevent recurrence.

Written responses to any non-conformities raised by the Principal's Authorised Representative or the relevant authorities will be provided within the agreed timeframes or as required by the relevant contract environmental specifications.

### 5.4. Audits

#### 5.4.1. Internal

A risk-based internal audit program is included in the PMP. The CEMP compliance audits will be undertaken by suitably qualified and experienced Fulton Hogan personnel not directly associated with the project every six (6) months, with the first audit occurring no longer than three (3) months after commencement of construction.

The audits will be carried out in accordance with the PMP Section 20. The scope of internal audits may include but is not limited to:

- Compliance with legislation, license, permit and approval obligations;
- Compliance with the mitigation measures in the CEMP and Sub Plans;
- Management of environmental nonconformities and incidents
- Subcontractor management
- Management of the environmental incidents

Any deficiencies identified in the audit will be promptly rectified according to the level of risk.

The outcomes of internal audits may trigger the requirement to update the CEMP and/or any associated Project Environmental Documents.

### 5.5. Reporting and Compliance Tracking Program

Refer to CTP in Appendix F for a description of the Project compliance tracking and reporting requirements.

## 6. Document Control and Records Management

The system used for document control and records management is detailed in the *Documents and Records Management Plan*. This enables the complete management of all documents, including the identification of document or drawing lists, author and recipient management and ensuring that documents remain legible and readily identifiable.

## 7. Review and Improvement of the CEMP

The CEMP will be reviewed at least annually to ensure compliance with legislative requirements and its suitability and effectiveness for the project and other requirements. The CEMP may be reviewed more regularly due to a change in construction activities, where targets are not achieved or in response to audits.

The review is completed by the ESR. The review may be in the form of:

- A formal management review
- A second party audit, and
- inclusion as a separate item at site meetings.

Any revisions to the CEMP as a result of management review will be issued as per the *Documents and Records Management Plan*.

### Revision History

Rev	Revised By	Reviewed & Approved By	Date	Description/Summary of Changes
0	K. Brown	A Vasilaras	31/10/12	Initial Issue for use.
1	I. Kliger	A Vasilaras	19/12/12	Amended as per RMS comments

**Appendix Q - Appendix 38 to Exhibit A to the Upgrade Project Deed**

**Appendix 38 Initial Construction Plan**







## Initial Construction Management Plan

**PROJECT: M2 LANE COVE ROAD ON RAMP PROJECT**  
**CONTRACT No.: TBA**

**CONTROLLED COPY NO: e-copy**

### DISTRIBUTION LIST OF CONTROLLED COPIES

Copy No.	Issued to	
1	Fulton Hogan Construction	Project Manager
2	Hills Motorway - Client	Client's Representative
3	Roads & Maritime Services of NSW	RMS's Representative
4	SKM – Independent Verifier	Independent Verifier's Representative

Originated and revised by:  
Salar Aga – Quality Manager (Eastern Construction)

Reviewed and authorised by:  
Arthur Vasilaras – Project Manager

\_\_\_\_\_  
(Signature/Date)

\_\_\_\_\_  
(Signature/Date)

Fulton Hogan Construction Pty Ltd (ABN 46 010 240 758), L3, 61 Dunning Avenue, Rosebery, NSW 2018

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## Acronyms

ASS	Acid Sulphate Soils
CIP	Community Involvement Plan
CEMP	Environmental Management Plan
CMC	Continuous Modulus Columns
CMS	Construction Method Statement
CMP	Construction Management Plan
D&C	Design and Construct
CMP	Construction Management Plan
DP	Design Plan
HM	Hills Motorway
ICMP	Initial Construction Management Plan
IRI	International Roughness Index
KPI	Key Performance Indicator
KRA	Key Review Area
MCOS	Minimum Conditions of Satisfaction
OEH	Office of Environment and Heritage
PASS	Potential Acid Sulphate Soils
PMP	Project Management plan
RMS	Roads and Maritime Services
SMZ	Select Materials Zone
SWMS	Safe Work Method Statement
SWTC	Scope of Works and Technical Criteria
WAE	Works-As-Executed Drawing

## 1. Project Description

The M2 Lane Cove On Ramp Project is a Design and Construct (D&C) Project, which involves designing and constructing of a new eastbound on-ramp from Lane Cove Road to the M2 Motorway at Macquarie Park with motorway widening between the new ramp and the existing Delhi Road eastbound off-ramp.

Key features of the project are:

- A new on-ramp from the southbound carriageway of Lane Cove Road to the eastbound carriageway of the M2 Motorway.
- Widening of the eastbound carriageway of the M2 Motorway by one additional lane for around 600 metres from the new on-ramp extending to the beginning of the existing eastbound Delhi Road off-ramp.
- Widening of the Wicks Road Bridge to facilitate the additional eastbound lane.
- A new toll point at the on-ramp.
- Additional traffic management systems (including an over-height detection system using existing Variable Message Signage and Closed Circuit Television (CCTV) coverage of the new on-ramp and alterations to the Intelligent Transport Systems.
- Finishing works including line marking, lighting, signposting, site clean-up, restoration and landscaping and revegetation.

## 2. Introduction

The success of a Project is highly dependent on the competence of the people employed. Therefore, the project team involved in M2 Lane Cove On Ramp Project is committed to development and implementation of this Initial Construction Management Plan (ICMP). This plan describes Fulton Hogan's overall approach for managing and controlling the construction requirements on the Project.

This ICMP interfaces with the other associated plans, which together describe the proposed overall project management system for the Project to ensure full compliance with all specified and implied requirements of the Project Deed, M2 Project Deed and SWTC.

This ICMP is applicable to all staff, employees and subcontractors throughout the duration of the contract until project completion and its implementation and further undertake the on-going development, amendment and updating of the Construction Plan throughout the duration of the Contractor's Work to take into account:

- i. changes in design or construction sequencing, staging, methodology or resourcing;
- ii. The status and progress of the Contractor's Work;
- iii. Changes in access to the Construction Site; and
- iv. Variations directed by MH or RMS's Representative under the Deeds.

The latest revision of this plan is available on Fulton Hogan server. If any unsigned hard copies are printed of this document, they are valid only on the day of printing.

The revision number is included at the bottom of each page. When revisions occur, the entire document will be issued with the revision number updated accordingly.

Attachments/Appendices to this plan are revised independently of this plan.

### 3. Purpose

The purpose of this ICMP is to describe how Fulton Hogan proposes to manage and control the construction phase of the Project.

This ICMP describes how the physical construction activities of the Project will be managed on the basis of Fulton Hogan's ability in performing the works in a systematic, safe and environmentally sustainable manner as well as in a way that minimises the impacts of the construction works with relevant stakeholders.

It also provides the necessary project controls and information management system to plan, document, monitor, control, audit and verify that Fulton Hogan's operations and finished products with respect to time, cost and quality control are in compliance with the contract documents including the Project Deed, M2 Project Deed and SWTC and other associated project documents.

### 4. Requirement Matrix

The requirement matrix that is accompanied with this plan is developed to assist users and reviewers to identify where various elements of MH and RMS requirements are addressed in this plan in particular to Appendix 14 of SWTC.

### 5. Strategy for the Project

The strategy of the CMP is to bring a highly experienced team with a proven track record in design and construction that can deliver a project of this type and scale. By implementing this strategy, Fulton Hogan will be able to comply with the requirements of the Project Deed, M2 Project Deed and SWTC.

### 6. Approvals

No work is to be allowed to start on site, except expressly permitted under the deed, until formal acceptance from MH is received and until the submission and approval M2 Motorway Work Permit in accordance to Clause 10.5 of Project Deed.

Early works, consisting of:

- Survey work
- Property works
- Mobilisation to site including establishment of Project Office and Amenities, project Compound (including secondary/satellite offices, amenities and compounds), Access roads to Project Office and Compound, improvements to Princes Highway at intersection(s) with site access roads. This work may include minor site clearing and earthworks activities

- any construction work associated with foundation treatment or improvement, including the placement of fill for preloading
- Service Works, including Services relocations and adjustments; and
- Minor construction work that does not require an environment protection licence from the Environment Protection Authority.

and the receipt of the following:

- Road Occupancy Licence if required
- Environmental Protection Licence
- Other approvals mentioned in CEMP

Design packages developed during the design of the works currently require submission and approval of each package at various stages throughout the design process. The total design process is envisaged to take approximately 22 weeks to complete to IFC for construction can commence.

As the Project Deed does not make provision for it, Fulton Hogan may opt to submit to the Client and/or RMS that contrary to the above process - early works; to commence "early" by authorising the commencement of works prior to the completion of design. Should the Client or RMS accept this proposal; this may have direct impact the contract program by potential improving project completion.

## 7. Key Issues

This project presents a number of challenges that are required to be dealt with by the members of the project team. For the purpose of this plan, the key issues and proposed mitigation measures are addressed in the Project Risk and Opportunity Register that is appended to the Risk Management Plan (RMP).

## 8. Objectives and Targets

The project objectives outlined in the SWTC are:

- Improves traffic flow and reduces travel times in the M2 corridor through the reduction of congestion hot spots;
- Minimises negative impacts on the surrounding road network;
- Improves public transport, particularly along bus and transit lanes in the M2 corridor;
- Minimises negative environmental impacts including those relating to noise during both the construction and operation and maintenance phases of the M2 Upgrade;
- Restores pedal cyclist routes along the M2 corridor;
- Rationalises speed limits in the M2 corridor;
- Increases accessibility of the M2 corridor through the provision of road ramp connections;

- Increases the capacity of the traffic and transport network to accommodate future demand and needs for growth in the M2 corridor;
- Improves safety and amenity for the road users in the M2 corridor;
- Ensures efficient and consistent function of the M2 as part of the Sydney road network; and
- Provides a cost effective solution.

Additional objectives are to:

- Investigate, design, construct and commission the Project Works to meet defined environmental requirements and limit any adverse impacts to the natural and built environment while maximising the environmental benefits;
- Satisfy the technical and procedural requirements of RMS with respect to investigation , design and construction of the M2 Upgrade;
- Apply urban design principles to ensure the final form, line , colour and texture of the Project Works is compatible with the existing landscape;
- Provide all connections, modifications and improvements necessary to link the M2 Upgrade to the existing M2 Motorway;
- Make temporary arrangements during construction to minimise disruption to local and through traffic and to maintain access to affected properties and land;
- Consider and make allowance for the operation and maintenance of the M2 Upgrade during the design, construction and commissioning of the Project Works; and
- Develop, operate and maintain effective systems to manage occupational health safety and rehabilitation, industrial relations, training and the environmental and quality aspects of the M2 Upgrade.

Objectives and targets will be continually reviewed during the course of the Project, with changes and developments feeding back from the Project. The delivery of the Project's objectives, as outlined in the SWTC, will be the responsibility of the Project Manager or nominee and detailed in the Duties and Responsibilities Matrix - incorporated within the Project Management Plan (PMP). Nominated personnel of the phase or function will be responsible for developing and implementing appropriate management tools and process controls to achieve these objectives.

The non-incentive Key Review Areas (KRA) associated with the management of construction works is summarised in the following table:

KRA	MCOS (Target)	KPI
Project Completion Date	58 weeks from the date of the Project Deed.	Program on target

These KPI and targets will be continually reviewed during the course of the project, with changes and developments feeding back from the project team.

## 9. Duties and Responsibilities

The management of construction activities is organised under the control of the Project Manager, as depicted in the Project Organisation Charts, summarised in the Duties and Responsibilities section in the PMP.

The Project Manager is to be responsible for implementing the requirements of this plan.

## 10. Construction Zones

Based on the tender Design, the Project has been divided into the following sections of works:

- Lane Cove Road Tie-in
- On Ramp (including toll gantry)
- M2 Road Widening
- Wicks Road Bridge
- Finishing Works

## 11. Design Performance

The design performance on the Project will be achieved by adopting the requirements set out in the Design Plan (DP).

The governance strategy for ensuring that the requirements of the DP being met are achieved through regular design coordination meetings by the Design Review Group (DRG) and the project participants. These meetings are to be used to review progress and coordinate the activities of the design management team with other parties involved in design delivery. By doing so, the design performance will be managed accordingly.

The Management and coordination of the meetings is addressed under the PMP.

## 12. Durability

Durability is required to be taken into account during design development. This includes the following:

- Understanding durability issues (such as strength and condition) associated with existing structures to be incorporated into the works
- Understanding potential deterioration mechanisms at particular sites and within certain existing environments and structures
- Minimising whole of life costs through choice of materials
- Planning for maintenance activities during design
- Undertaking investigations where required (such as concrete sampling)

A durability report will be produced by AECOM that will demonstrate that durability and maintenance have been reasonably taken into account during design. The contents of this report will be developed and discussed by the project team, but as a minimum it is to



address the issues listed above. Refer to the DP for further details for achieving the durability requirements of the Project.

### 13. Technical Specifications and Construction Standards

Fulton Hogan confirms that its technical specifications do not differ from RMS's Design and Construction specifications and requirements of these specifications will be achieved through controlled processes addressed under Quality Management Plan such as Construction Method Statements (CMSs), Inspection and Test Plans (ITPs), Verification Checklists (VCs) and random internal and external audits. RMS's Design and Construction specifications are identified in the tables below:

ROADWORKS SPECIFICATIONS	
SPECIFICATION	TITLE
RMS DCM ITS	Illuminated Tunnel Signs
RMS DCM R11	Stormwater Drainage
RMS DCM R15	Kerbs and Gutters
RMS DCM R16	Precast Reinforced Concrete Box Culverts
RMS DCM R22	Corrugated Metal Structures
RMS DCM R23	Plastic Flexible Pipes
RMS DCM R32	Subsurface Drainage- Materials
RMS DCM R33	Trench Drains
RMS DCM R37	Intra-pavement Drains
RMS DCM R38	Edge Drains
RMS DCM R39	Drainage Mats
RMS DCM R44	Earthworks
RMS DCM R49	Construction of Verges
RMS DCM R50	Stabilisation of Earthworks
RMS DCM R53	Concrete (for General Use), MoRMSr and Grout
RMS DCM R55	Rock Filled Gabions and Mattresses
RMS DCM R57	Design of Reinforced Soil Walls
RMS DCM R58	Construction of Reinforced Soil Walls
RMS DCM R63	Geotextiles (Separation and Filtration)
RMS DCM R71	Unbound and Modified Pavement Course
RMS DCM R73	Heavily Bound Pavement Course (Plant Mixed using Slow Setting Binders)
RMS DCM R75	In Situ Pavement Recycling by Deep-Lift Cementitious Stabilisation

RMS DCM R82	Lean-Mix Concrete Subbase
RMS DCM R83	Jointed Concrete Base
RMS DCM R84	Continuously Reinforced Concrete Base
RMS DCM R92	Shotcreting, Tensioned Mesh and Rockbolting
RMS DCM R106	Sprayed Bituminous Surfacing (with Cutback Bitumen)
RMS DCM R107	Sprayed Bituminous Surfacing (with Polymer Modified Binder)
RMS DCM R109	Bituminous Slurry Surfacing
RMS DCM R111	Sprayed Bituminous Surfacing (with Bitumen Emulsion)
RMS DCM R116	Asphalt (Dense Graded and Open Graded)
RMS DCM R121	Stone mastic Asphalt
RMS DCM R131	Guide Posts
RMS DCM R132	Safety Barrier Systems
RMS DCM R141	Pavement Marking
RMS DCM R142	Retroreflective Raised Pavement Markers
RMS DCM R143	Signposting
RMS DCM R151	Street Lighting
RMS DCM R161	Fencing
RMS DCM R174	Landscape Maintenance
RMS DCM R176	Seed Collection
RMS DCM R178	Vegetation
RMS DCM R179	Landscape Planting
RMS DCM R271	Design and Construction of Noise Walls
RMS DCM VDSPE	Vehicle Detection System
RMS SI TCS 8	Installation and Reconstruction of Traffic Light Signals

#### BRIDGEWORKS SPECIFICATIONS

SPECIFICATION	TITLE
RMS DCM B30	Excavation and Backfill for Bridgeworks
RMS DCM B50	Driven Reinforced Concrete Piles
RMS DCM B51	Driven Prestressed Concrete Piles
RMS DCM B53	Driven H-Section Steel Piles
RMS DCM B54	Driven Tubular Steel Piles
RMS DCM B57	Driven Cast-in-Place Concrete Piles

RMS DCM B58	Permanently Cased Cast-in-Place Reinforced Concrete Piles
RMS DCM B59	Bored Cast-in-Place Reinforced Concrete Piles (without Permanent Casing)
RMS DCM B61	Driven Composite Piles
RMS DCM B63	Concrete Injected (CFA) Piling
RMS DCM B80 SS	Concrete Work of Bridges Stainless Steel
RMS DCM B80	Concrete Work for Bridges (Non Stainless Steel)
RMS DCM B82	Shotcrete Work
RMS DCM B110	Supply of Pre-tensioned Precast Concrete Members
RMS DCM B113	Post-Tensioning of Concrete
RMS DCM B114	Ground Anchors (Lump Sum)
RMS DCM B115	Precast Concrete Members (Not Pre-tensioned)
RMS DCM B150	Erection of Pre-tensioned Precast Concrete Members
RMS DCM B152	Incrementally Launched Prestressed Concrete Girders
RMS DCM B153	Erection of Precast Concrete Members (Not Pre-tensioned)
RMS DCM B170	Supply and Installation of Void Formers
RMS DCM B200	Fabrication of Major Steel Structural Members
RMS DCM B204	Welding of Bridges and Other Road Structures
RMS DCM B220	Protective Treatment of Bridge Steelwork.
RMS DCM B240	Supply of Bolts, Nuts, Screws and Washers
RMS DCM B241	Manufacture and Supply of Minor Steel Items
RMS DCM B242	Manufacture and Supply of Aluminium Railings
RMS DCM B245	Fabrication of Aluminium Structural Members
RMS DCM B246	Manufacture and Supply of Minor Aluminium Items
RMS DCM 8260	Erection of Structural Steelwork
RMS DCM B261	Erection of Structural Aluminium
RMS DCM B264	Erection of Barrier Railings and Minor Components
RMS DCM B280	Unreinforced Elastomeric Bearing Pads and Strips
RMS DCM B281	Laminated Elastomeric Bearings
RMS DCM B282	Pot Bearings – Structural Steel
RMS DCM B283	Pot Bearings — Stainless Steel
RMS DCM B284	Installation of Bridge Bearings
RMS DCM B310	Compression Seal Expansion Joints
RMS DCM B312	Cold Applied Elastomeric Joint Sealants

RMS DCM B315	Elastomeric Strip Seal Expansion Joints
RMS DCM B316	Modular Bridge Expansion Joints
RMS DCM B341	Demolition of Existing Structure
RMS DCM B344	Sprayed Bituminous Waterproofing Membrane for Concrete Bridge Decks

MATERIALS SPECIFICATIONS	
SPECIFICATION	TITLE
RMS DCM 3051	Unbound and Modified Base And Subbase Materials For Surfaced Road Pavements
RMS DCM 3052	Material to be Bound (MTBB) for Base and Subbase Materials for Surfaced Road Pavements
RMS DCM 3053	Quicklime
RMS DCM 3054	Hydrated Lime
RMS DCM 3151	Cover Aggregate for Sprayed Bituminous Surfacing
RMS DCM 3202	Wax Emulsion Concrete Curing Compound
RMS DCM 3204	Preformed Joint Fillers for Concrete Road Pavements and Structures
RMS DCM 3211	Cements, Binders and Fillers
RMS DCM 3251	Cutter and Heavy Flux Oils
RMS DCM 3252	Polymer Modified Binder
RMS DCM 3253	Bitumen for Pavements
RMS DCM 3254	Bitumen Emulsion
RMS DCM 3256	Comminuted Scrap Rubber
RMS DCM 3258	Aggregate Precoating Agent (for Bitumen)
RMS DCM 3259	Bitumen Adhesion Agent (for Bitumen)
RMS DCM 3261	Cutback Bitumen
RMS DCM 3263	Hot Poured Elastomeric Joint Sealant for Roads
RMS DCM 3266	Coldmix Asphalt
RMS DCM 3268	Aggregate Precoating Agent (for Polymer Modified Binder)
RMS DCM 3269	Bitumen Adhesion Agent (for Polymer Modified Binder)
RMS DCM 3351	Road Marking Paint
RMS DCM 3353	Glass Beads (for Application to Road Marking Materials)
RMS DCM 3354	Adhesives for Raised Pavement Marker Installation
RMS DCM 3356	Water Borne Road Marking Paint

RMS DCM 3357	Thermoplastic Road Marking Material
RMS DCM 3358	Aerosol Roadmarking Paint
RMS DCM 3359	Profile Thermoplastic Road Marking Material
RMS DCM 3360	Two Part Cold Applied Road Marking Material
RMS DCM 3385	Barrier Boards
RMS DCM 3400	Manufacture and Delivery of Road Signs
RMS DCM 3411	Supply of Guide Posts (Timber)
RMS DCM 3412	Supply of Guide Posts (Non-Timber)
RMS DCM 3552	Drainage Pipe (Corrugated Perforated Plastic)
RMS DCM 3553	Seamless Tubular Filter Fabric
RMS DCM 3555	Drainage Pipe (Slotted Fibre- Reinforced Concrete)
RMS DCM 3556	Rigid and Flexible Strip Filters (Geocomposite Plastic)
RMS DCM 3851	Steel Tapered Lighting Columns
RMS DCM E0057	Control Unit for High Pressure Sodium Vapour Discharge Lamps
RMS DCM E0058	Street Lighting Luminaires Using High Pressure Sodium Vapour Discharge Lamps

## 14. Construction Program

### 14.1. General

Access A detailed tender program has been prepared and allows for:

- Access dates as per tender documentation;
- Design and Project Approval durations including Office of Environment and Heritage (OEH) Licence and M2 Motorway Work Permit Approvals;
- Procurement of permanent and temporary resources; and
- Construction production rates

This tender program will be used as the basis for the development of the Contract Program. The Contract Program is required to be managed in accordance with Fulton Hogan's [Planning and Programming Procedure](#) and the requirements of the project Deed.

In addition, the Contract Program will be developed using precedence networking techniques. This network will provide the strategic framework for the sequence and timing of the whole project in accordance with the key milestones. It will also form the basis of a progress chart with superimposed s-curve. The superimposed s-curve represents the planned percentage of work to be completed against time from master planning.

The program will include all critical activities and show their relationships to one another. This includes the design and approvals process (separately if necessary) and the procurement, resourcing and conduct of construction and commissioning.

Working within the framework of the Contract Program, detailed sub-programs will be prepared for the design, procurement, construction and commissioning phases of the Project. These sub-programs will form the basis for monitoring and controlling time performance.

Detailed programs will be sought from subcontractors and suppliers for their areas of responsibility as a means of monitoring their progress.

Programs will be monitored daily and weekly at the detail level to record the actual progress of each activity against planned. Actual physical percentage of work completed will be measured and recorded against the planned s-curve to indicate overall progress. A comparison with the current status of the original plan will highlight work activities requiring corrective action. Adherence to the program will be reviewed daily by work teams, weekly basis by site supervisors and on a monthly basis by project and executive management.

Weekly short-term work schedules will be prepared, in accordance with the detailed sub-programs, to initiate the direct site activities.

Where overruns are noted, corrective action will be implemented and reviewed to bring the activity back in compliance with program.

The overall and subsidiary programs will be updated on a monthly basis to take into account changes to the program for the Project Works and delays experienced or anticipated.

This information will be appended to the monthly progress report that is supplied to the Independent Verifier and RMS's Representative each month as changes are made.

## 14.2. Access Dates and Milestones

Access dates and milestones are detailed in the Contract Program. Please refer to program for further details.

## 14.3. Design and Approval Durations

The Tender program provides a summary of the design process for the works, subdivided into work elements:

- Roadwork's
- Bridgeworks
- Utility Adjustments

Each element of design has been subdivided into submission and approval stages:

- 15% design submission
- 85% design submission

- 100% design submission
- Final Design/Issue of IFC drawings

Fulton Hogan has incorporated an estimated period of time at each stage of the design approval process, and during various stages of construction for M2 Motorway approvals.

#### 14.4. Production Rates

The program includes the following basis of structures (approx. quantities for gaudiness only):

Cut to Fill - scrapers	Dependant of access between Up to 300m <sup>3</sup> per day, 1 fleet
SMZ place	Up to 1,000t per day
Basecourse	Up to 1,000t per day
Asphalt	Up to 1,000t per day
Bored Piles	1 to 2 piles per day
I-Girder erection	2 girders, 1 crane

#### 14.5. Construction Processes within the M2 Motorway corridor

Construction activities are shown in the tender program. As per the above mentioned item, there are three areas where works are being constructed in the M2 Motorway corridor as outlined in this Plan.

### 15. Safe Processes for Each Element of Work

All personnel involved in this Project are required to undergo the project specific site induction prior to the start in accordance to the Project WHS Management Plan so that they are aware of Project specific requirements.

The detailed construction methods for all bridges will be addressed in a CMS which will be submitted to the MH Representative, IV and the RMS's Representative prior to the commencement of the works.

In addition, based on the new Harmonisation legislation, a risk assessment is required to be completed for every work activity, however, a Safe Work Method Statement (SWMS) is also required to be prepared for each element of work to address safe processes for various site work activities. These SWMS will be developed in consultation with the personnel who will be involved with the work.

The development, review and implementation of safe methods of work will be required to be carried out as prescribed in the Project WHS Management Plan.

Methods of work will be required to be developed in parallel to the design processes to ensure that safety hazards are identified as early as possible in the process.

Suppliers and Subcontractors will be required to prepare and submit their own SWMS to Fulton Hogan for review prior to their commencement with the associated works on site.

Subcontractor construction activities are not authorised to proceed on site unless subcontractor JSEA/SWMS have been reviewed by Fulton Hogan using [Review of Subcontractor JSEA/SWMS Checklist](#). Refer to Project WHS Management Plan for further details concerning the safe operation of the construction works in particular to the requirement of preparing SWMS.

Site safety inspections and audits will monitor and report on compliance to agreed safe work practices.

## 16. Safety of Temporary Works

Temporary works include any formwork, falsework, special scaffolding systems, temporary load carrying structures (other than standard access scaffolding and other standard elements) or structure that is used to facilitate construction (e.g. falsework) or allow the public to move safely through or around a project. Temporary works elements can be categorised as follows:

- Soffit or supporting structure elements (such as slab or pier crosshead soffit Formwork, prestressed unit supporting falsework);
- Vertical elements (such as wall side-shutter formwork, column formwork);
- Temporary infrastructure, e.g. chemical tank;
- Lifting devices for manufactured items; and
- Traffic control, temporary roadways and detours, if required.

The design, construction and use of temporary works will be required to be governed by the procedures contained within the following project specific Plans:

- Design Plan.
- Quality Management Plan.
- Project WHS Management Plan.
- Traffic Management and Safety Plan; and
- Construction Environmental Management Plan.

In all cases, temporary works will be required to be designed to comply with relevant design codes, safety and environmental regulations.

All temporary works (temporary retaining structures, formwork etc) will be designed by our Structural Designer or third party design consultants nominated in the Design Plan or by in house design of third parties such as Peri Formwork or RMD Formwork.

Any changes or modification to the design is required to be approved by the Designer, Independent Verifier and the RMS's Representatives. Whenever a change occurs, then the Project Drawings shall be changed accordingly to include any impacts upon other activities as well as for Works-As-Executed Drawing (WAE) Purposes.

In addition to ensuring safety to Fulton Hogan and all stakeholders involved in the project, Fulton Hogan will also assess the risks on site with the view that "others" may access the site at some time and be subject to the hazards on the site. As such, all SWMS will be developed with this view and all site inspections will be carried out with this view.



In particular, the areas where development of SWMS must address the potential for others would be:

- Safety of excavations, permanent and temporary;
- Safety in roadwork's adjacent to live M2 Motorway traffic; and
- Safety associated with the production, storage and transportation of precast structural elements.

Control methods will be adopted to prevent un-authorized or illegal access to the site. Such controls could include:

- Security Fencing where practical;
- Perimeter or closure fencing installed and maintained where there is exposure to uncontrolled risks;
- Surveillance by Security service outside working hours;
- Signage identifying the site a construction site and advising entry to authorised personnel only; and
- Direct intervention by project management team.

The control measures are detailed in the Project WHS Management Plan.

The temporary works will be required to be inspected at regular intervals to ensure continued compliance with the requirements.

## 17. Access to Affected Properties

The Project Team has the responsibility to ensure that the general public in particular people affected by the construction works are able to carry on their normal activities as far as possible.

The process to ensure this is happening is briefly addressed in the following project specific plans:

- Community Involvement Plan; and
- Traffic Management and Safety Plan.

In summary, where properties will be affected by the works, the owners/tenants will first be informed by a letter drop of the upcoming works. The letter will contain the preliminary traffic management plan or method statement for comments.

Following a letter drop, the owners / tenants will be required to be contacted individually or collectively (as appropriate) for their comments and to enhance their understanding of the situation.

If Fulton Hogan needs access to properties for the purpose of Dilapidation Surveys, inspections will be conducted by agreement of the owner / tenants and provide a detailed record (including dated photographs) of the preconstruction condition of the property. The owner/tenants will be contacted to arrange an agreed time for the survey to take place.

If Fulton Hogan needs to access a property, which is not part of the Construction Site to carry out the works, access will be required to be gained in a similar manner to that used to gain access for the dilapidation survey mentioned above.

## 18. Local Road Works, Property Works and Service Works

### 18.1. Local Road Work

The existing highway, roadways, temporary roadways and detours are required to be maintained in accordance to the requirements of the Project Deed.

This includes:

- Sections of newly completed roadways after opening until the date of construction completion;
- Sections of the existing works that are yet to be constructed; and
- Local Roads used by construction traffic.

The construction of the temporary roadways and detours will be required to comply with the relevant RMS specification for the particular roadwork element.

Fulton Hogan will co-operate with the MH, RMS, local council or their agents in carrying out construction activities in order to provide a safe, trafficable condition road for all class of vehicles that may use them. Refer to the Traffic Management and Safety Plan for further details.

### 18.2. Property Works

The proposed construction methodology for property adjustment is detailed as follows:

- Identify addresses as detailed in the property works drawings which will be developed as part of the design in compliance with the D&C Deed and SWTC.
- Issue notification with dates and duration of intent to commence work to adjacent properties in accordance to CIP and requirements set above for gaining access to properties.
- Use dial before you dig drawings to ensure all existing utilities are identified and use appropriate measure to disconnect where needed in accordance to Project WHS Management Plan.
- Set up of traffic control where necessary. (All required warning signs, devices and emergency procedures are in place) in accordance to Traffic Management and Safety Plan.
- Remove and dispose of all structures as outlined in the scope of works for each property ID and in accordance with WHS Act, Regulations and Code of Practice for the Safe Removal of Asbestos and Construction Environmental Management Plan.
- Reinstate and compact backfill in excavations to existing surface levels.
- Backfill and compact with material imported from stockpile.

### 18.3. Service Works

#### Existing Services

The proposed construction methodology for existing services for all areas is detailed as follows:

- The works is to identify and relocate and lay new and existing services.
- Install traffic control devices and ensure that they are in accordance with traffic control plans.
- Use dial before you dig drawings to ensure all existing utilities are identified and use appropriate measures to disconnect or relocate utilities.
- The Surveyor shall mark out all the recorded information received from Potholing and from the contract drawings, indicating line, level and gradient and peg to F.S.L. Also pick up utilities as installed for preparation of Works-As-Executed drawings.
- No work on any work activities that break ground to start unless excavation permits have been issued in accordance to Project WHS Management Plan. It is of utmost importance to have information about the area of works before commencing.

#### Services Authorities works (Sydney Water, Telstra, Jemena, Ausgrid, AAPT and Optus):

The proposed construction methodology for new services for all areas is detailed as follows:

- Subcontractor to identify services within the location of works.
- Service Authority approved subcontractor to excavate, supply & install all necessary infrastructure to approved Authority Standards.
- Testing & commissioning to be done by to relevant authority and RMS Standard.
- Erosion & sediment controls should be installed and maintained at all times by the Subcontractor.

### 19. As Constructed Information

The design change management process normally captures changes during construction to existing approved design. Design documentation will be progressively updated to reflect actual built conditions.

Confirmation will be sought from the relevant construction resources as to whether further changes to design were implemented during construction. If so, the changes will be marked (Stamped in Red) upon the latest design drawings (Controlled Copy-1) for incorporation into Work-As-Executed documentation.

Amendments necessary through-out the construction phase of the Project as a result of an RFI, NCR, an Instruction ... etc. will be done on Controlled Copy-1 of the drawings with Red Pen in compliance with contract documents.

Relevant RFI, NCR, Correspondence ...etc. number are to be documented on relevant Work-As-Executed design documentations progressively during the delivery of the works.

Towards the end of the Project, the project team will go through Work-As-Executed drawings to identify the drawings with substantial marked up changes for redrafting. Redrafting will not be required if the marked up changes are minor.

The Design Manager will sign off Work-As-Executed design documentations.

## 20. Details of Construction Methods and Planned Resource Levels

### 20.1. Detailed Construction Methods

The Project Manager with due delegation to designated team is required to plan and transform Client specified requirements consistently in a controlled and systematic way into products and services that Fulton Hogan is contracted to provide using the tools (CMS and ITPs) identified in Quality Management Plan.

Initially, the relevant project team will be required to plan the execution of the activities on a Work Pack template. The Work Pack template is a planning document to provide the Project Team with a comprehensive overview of all the components of an activity (i.e. how the Project Team intends to produce the outputs)

The output of this planning document will be a folder for each activity containing all the necessary documentation with dividers (Work Pack appendices such as CMS, ITP, specific SWMS, specific EWMS, temporary designs, sketches...etc.) for the foreman on site.

This Work Pack will be required to be completed and signed off prior to the commencement of the works

These CMSs are in addition to the Work Packs and they will be required to be prepared in accordance to Clause 7.5.1 of RMS DCM Q6 detailing the construction methods in sequential order. CMSs are required to be submitted to the Independent Verifier and the RMS's Representative for review progressively but 14 days prior to the commencement of such an activity.

The Register and Plan of CMS are appended to the Quality Management Plan.

For ITPs, they are required to detail the construction method in accordance to Clause 8.8.1 of RMS DCM Q6 and they are required to be submitted to the IV and RMS for information. RMS and IV may provide comment on the ITPs during the initial submission and may conduct ongoing reviews on the ITPs during the construction of the relevant activity and notify Fulton Hogan if IV or RMS believes that the ITP does not comply with the Deed.

For subcontractor (including suppliers), all CMS related documentation forwarded by subcontractors are to be reviewed by Fulton Hogan to ensure that subcontracted activities are also transformed in a controlled and systematic way.

The requirement for preparing, submitting and controlling CMS is detailed in the Quality Management Plan.

## 20.2. Planned Resource Levels

Fulton Hogan Construction has developed a construction methodology based on the conforming design submitted with this tender. From this methodology a program has been developed that identifies the nature, sequence and duration of the various activities and is also submitted with this tender.

Fulton Hogan will self-perform activities in critical supply and construct areas such as earthworks, pavements and bridge construction and will consider the merits of subcontracting supply or installation resources to match the resources of Fulton Hogan.

The following table outlines the required resources identified for the Project as a guide:

Activity	Quantity Resources Required	Strategy / Availability
Excavation	Excavator	Hire from local / NSW plant hire companies or Subcontract
Haulage	Trucks – Boggie & Tipper	Hire from local / NSW plant hire companies or Subcontract
Compaction	Pad foot Rollers Smooth drum Roller	Hire from local / NSW plant hire companies or Subcontract
Trimming	Graders Water carts	Hire from local / NSW plant hire companies or Subcontract
Piling	Bored Piling Rig	Piling Contractor – e.g AvoPiling, Hyatt, etc
Concrete Supply	m <sup>3</sup>	TBA
Reinforcing Supply	t	TBA
Super-T's	2	TBA
Girder Erection	Crane	Procure from specialist company.
Formwork	TBA	Currently in stage of procuring subcontractors
Concrete	TBA	Currently in stage of procuring a supplier
Stormwater Drainage	TBA	Currently in stage of procuring a supplier
Others	Refer to the Project Procurement Schedule	Refer to the Project Procurement Schedule

## 21. Safe Access

### 21.1. General Access

Suitable and safe access and egress measures are to be effectively planned, fully established and maintained in accordance to Road Design Guide requirements.

Access to construction areas are to be via the designated gates. Normal road rules apply throughout the site, including observation of posted speed limits along the haul roads.

The management of access to and from site is detailed in the Traffic Management and Safety Plan. Generally Vehicle Movement Plans (VMP) are required to cover safe access to and from areas where construction is taking place and are planned to ensure appropriate site distance, braking and acceleration distances are available to allow safe access / egress of all vehicles to and from the site.

The criteria for site distance, braking and acceleration distances will be based on RMS Traffic Control at Work Sites Manual.

In addition, areas where safe access and egress is not possible will require measures be installed to prevent unsafe actions to be performed contrary to VMP, such measures may include fencing or other forms of barriers.

VMPs are required to be submitted to the Client Representative as a Hold Point (HP) prior to implementation.

Refer to the Project WHS Management Plan for procedure pertaining safe access and egress to the construction site.

## 21.2 Access Roads

There are two types of access roads for the project:

- Access for property owners through the works.
- Access for construction works such as for haulage trucks and for crane platforms

### Property Owners

As construction progresses between properties and the existing Motorway, each property owner will require 24/7 access across the works, (unless Fulton Hogan are able to negotiate otherwise). Such accesses need to be constructed from gravels to provide all weather access, and need to be constantly changed as the earthworks and pavements progress. Construction of the final property accesses can be constructed when the formation reaches the final design levels.

### Construction Haul Roads

Fulton Hogan will construct access roads across the soft ground area to provide access along the site (required for both stages of the works through soft ground areas); in lieu of multiple accesses from the Princes Highway where each access will require truck acceleration and deceleration lanes and impact on the existing traffic will be multiplied.

Haul roads through watercourses will be constructed in accordance with the requirements set out in the SWTC and removed on completion. Pipework installed in the watercourses will be designed to cater for low flows only, with all flood events overtopping the haul road.

Haul Roads through the rest of the site can generally be constructed within the earthworks.

At each bridge site, heavy equipment such as piling rigs and cranes require purpose built platforms to provide safe working areas. In areas of soft ground, these work platforms will be of significant thickness, potentially include multiple layers of geotextiles, and in all cases, be designed and certified by temporary works engineer / geotechnical engineer.

These platforms are required in all areas of the site where heavy plant is required to operate including bridges, culvert sites and the precast yard.

## 22. Incident Management During Construction

The Project Manager will be responsible for ensuring that the site workforce is effectively trained and appropriately prepared to implement the incident control measures needed to respond to an incident under emergency conditions. All persons responsible for implementing and ensuring compliance to the Emergency Preparedness and Response Plan on site shall be trained in how to complete an Incident Report.

The Project Manager will be required to ensure that the assigned workforce:

- Has the capacity and capability to carry out the appropriate actions required;
- Is fully aware of the need to promptly notify and seek the assistance of the Emergency Authorities, as applicable. Such assistance must be immediately requested if the incident is graded as a significant or major incident; and
- Has the appropriate materials and equipment needed to control and handle the incident.

All staff, sub-contractors and employees are obligated to report all incidents of which they become aware through Fulton Hogan's online incident Management software, CAMs.

Incident reports are also required to be reported to the Client Representative for information and/or for concurrence.

More details of the incident and emergency procedure are detailed in the Project WHS Management Plan. These details will be explained to all workers during mandatory induction. Procedure specific for each area of work will be required to be explained as part of the regular toolbox or daily prestart meetings.

## 23. Maintenance During Construction

Fulton Hogan will maintain:

- The Motorway and all local roads as per the SWTC;
- The Project works during the construction phase;
- Services / property works and all other works associated with the works as per the SWTC; and
- Environmental and safety controls established on site and which may deteriorate with time for example sedimentation fencing.

Fulton Hogan will use full time dedicated crews of maintenance employees to ensure the safety controls, environmental controls and any other works such as traffic control or security is fully maintained during construction.

Fulton Hogan will also develop a Maintenance Manual 150 days prior to Project Completion Date to detail how Fulton Hogan will carry out the Maintenance activities in accordance to Section 16 of the Project Deed.

## 24. Procurement Strategy

### 24.1. General

Procurement for the Project will generally follow the standard Fulton Hogan's [Subcontracting Purchasing, Hiring Procedure](#).

In summary, the strategy for procurement is:

- Identification of project materials required;
- Development of a procurement plan & schedule;
- Identification and selection of suppliers;
- Placement of orders; and
- Quality assurance and management of supply contracts.

### 24.2. Identification of Project Materials

During the Design and Construct stage of the Project, the Bill of Quantities that has been developed by the estimating team will be updated for any changes in the specification and drawing revisions, and it will be used to readily identify a list of materials to be procured, including long lead items.

### 24.3. Procurement Plan

A Procurement Schedule will be developed in accordance with Fulton Hogan's [Subcontracting Purchasing, Hiring Procedure](#) and the requirements of the Project Deed.

At Project start up, the project team will set out how material procurement will be undertaken including allocation of responsibilities, identification of key work packages, supplier selection processes and on-going supplier management.

### 24.4. Materials Procurement Plan and Schedule

The identification of the project materials requirements will be recorded in the Procurement Schedule which serves as a Plan. The purpose of this schedule will be to:

- Summarise the identified requirements together with lead-times and dates required onsite;
- Identification of personnel responsible for all action up to and including requisitioning; and
- Minimise the risk of omitting or duplicating items.



The Procurement Schedule will be integrated with the Construction Program to determine the timing of procurement. The procurement process will take into account the project's system requirements for materials such that construction activities are not delayed. Refer to the Quality Management Plan for further details concerning the process for procuring subcontractors and suppliers.

#### 24.5. Identification and Selection of Suppliers

Suppliers are required to be selected based on their ability to deliver materials on time, according to the specification, and at a competitive price. Depending on the size and importance of the item being procured, the selection process is required to involve:

- Identification of potential suppliers;
- Selection criteria for suppliers;
- Assessment of previous performance on RMS and other projects;
- Documentation required;
- Dates and lead times for schedules, technical evaluations including compliance to specification, program, safety, environmental and quality requirements, as well as whole of life cost minimisation; and
- Commercial evaluations.

In some instances, this process will be established through the Design and Construct tender stage and will be finalised during the works. Where the estimating team has determined that a material supply is of a more critical nature than normal, specific procurement strategies will be established such as exclusive supply arrangements.

#### 24.6. Placement of Orders

Orders will be placed in a timely manner to ensure that materials arrive on site so as not to delay construction activities. These details will be recorded on the Procurement Schedule and reviewed by the management team on regular basis.

#### 24.7. Quality Assurance and Management of Supply Contracts

Once an order is placed, the site team will then ensure that the material is delivered, unloaded, stored and finally incorporated into the works in accordance with the supply agreement and the specification and drawings. This process is central to the Quality Assurance System and it is further described in Quality Management Plan.

### 25. Site Security

Security is not required during normal hours of operation, however outside of normal operating hours the site will be controlled under the arrangements provided in Site Layout drawings which will be provided to RMS and IV separately under Emergency Prepared and Response Plan.

Perimeter or Closure fencing will be erected and maintained to prevent unauthorised access into the site where there is exposure to uncontrolled risks.

Refer to the Project WHS Management Plan for further details.

In addition, security system will be installed on all site establishments including those required by the MH and RMS in the Project Deed.

## 26. Vegetation Clearing Limits

Clearing of any vegetation will be strictly in accordance with requirements of Flora and Fauna Management Sub-Plan.

Clearing Sequences shall be as follows:

- Locate any services within works area and toolbox to work crew.
- Identify limits of clearing through installation of surveying pegs either:
  - On existing boundary fence if it is located at the clearing limit; or
  - On star picket and wire fencing.
- Undertake pre-clearing fauna surveys within the area using a qualified ecologist and fauna volunteer as required.
- Install fence flagging 15m either side of creek area. This area is to remain undisturbed until a temporary diversion channel is constructed to convey clean upper catchment flows across the project.
- Install fence flagging around exclusion zone including the fig trees identified in Flora and Fauna Management Sub-Plan.
- Setup site access and egress points.
- Commence with Clearing in accordance to Clearing and Grubbing EWMS and Flora and Fauna Management Sub-Plan.

## 27. Weed Free Topsoil Treatments

The location and extent of weed infected topsoil will be surveyed and mapped prior to commencement of construction. The Weed Control Procedure within Flora and Fauna Management Sub-Plan prescribes the control measures to control weeds and managing stockpiles and these measures will be required to be adhered to at all times.

Exclusion Zone fencing will be established in locations where construction activities are not required, and weed infestations have been previously identified. This will prevent unnecessary disturbance of topsoil and reduce potential for weed spread.

## 28. Spoil Management

A detailed Spoil Management procedure is developed to address:

- Minimisation of imported materials
- Maximisation of re-use of materials

This procedure is embedded within the Earthworks Plan that addresses stockpile locations, types and volumes, and management of stockpiled materials in order to avoid, reduce, reuse and minimise waste.

The procedure also briefly addresses haulage routes. The haulage is dependent on the source of material and will be either by scraper or by road truck (truck and dog).

For the stockpiling of topsoil for later reuse on the Project, topsoil stripped from site will be stockpiled on sites adjacent to the formation. The actual type and location of stockpiles is to be planned and coordinated with the RMS's Representatives, and also detailed in the appropriate erosion & sediment control plans (ESCP) established for the various stages of the works. This is further described under Soil and Water Management Sub-Plan that is appended to the Construction Environmental Management Plan (EMP).

The stockpile locations are also required to take into account the requirements set under [Flora and Fauna Management Sub-Plan](#) that is also appended to EMP.

The Quality Manager is responsible for ensuring that the material imported to site, or available on site, conforms to the Client's technical requirements as specified in the Technical Specifications provided within the contract documents. This requirement is addressed in the Quality Management Plan.

The number of tests, including the frequency and acceptance criteria to demonstrate compliance of the various materials required for the works, is to be documented within the appropriate Inspection and Test Plans (ITPs) and delivered in accordance with the Quality Management Plan.

NATA approved test reports will be required to be maintained by Fulton Hogan on site verifying the compliance of the various materials sourced on site or imported from external sources.

## 29. Site Management

Temporary works facilities for the works consist of:

- Main Site Compound; and
- Satellite Grib Rooms on Site;

The establishment of these temporary facilities will be documented in WMS and submitted to the MH Representative, Independent Verifier and the RMS's Representative for review.

The management of these temporary site facilities from environmental point of view is detailed in the CEMP under Ancillary Facilities.

The management of these temporary site facilities from OHS point of view is detailed in the Project WHS Management Plan under Safety Standards.

## 30. Changes to Construction Management Plan

Fulton Hogan's IMS allows for implementing changes to Construction Management Plan. Specifically if this document:

- is not adequately addressing the Project requirements, are causing nonconformity;
- is no longer representing current practice or as a result of adverse audit findings;
- is no longer representing Fulton Hogan's current or appropriate practice; or
- If directed or notified by the Client Representative and/or the Independent Verifier that this Plan and the associated procedures do not comply with the Project Deed.

This is also includes the following requirements:

- Changes in project management processes;
- Changes identified by the continuous improvement of processes;
- Changes in law;
- Changes in design;
- Changes in construction sequencing, staging, methodology;
- The status and progress of the works;
- Changes in access to the Site;
- Variations (both positive and negative) under the deed;
- Changes in design or construction sequencing, staging, methodology or resources;
- Changes in the design and construction processes, including the use and development of new designs and materials;
- New design and construction processes requiring documentation which this Plan does not address; and
- Any other event or circumstance impacting the delivery of the Project.

The changes must:

- Remedy the deficiency in this Plan; and
- Not reduce the effectiveness the control and supervision of the works.

For the purpose of this Plan, this is further addressed under Document and Records Management Sub-Plan that's appended to this Plan.

### 31. Measurement, Analysis and Improvement

For the purpose of this Plan, the process for measurement and improvement, including corrective actions, is addressed in the QMP.

### 32. Procedures/Sub Plans

The following Procedures are on Fulton Hogan Intranet and are available to external parties upon request or through dedicated Fulton Hogan computers in Independent Verifier and RMS Representative site offices:

Project Launch Procedure describes the process by which a project is launched and the processes and procedures approved and implemented on the project.

Site Establishment Procedure describes how the site is to be established after all the issues impinging on the operation of the site have been considered and the operation pre-planned so that the mobilisation, on-going operation and demobilisation of the site can be carried out in a cost effective, safe, environmentally sensitive and efficient manner.

Head Contract Management Procedure outlines the structure, purpose, management and administration of head contracts and to ensure the contract is reviewed for commercial and technical risks as well as to ensure the obligations of both parties are clear, understood and agreed.

Cost Planning and Forecasting Procedure describes how the Project Estimate is broken down in accordance with the approved work breakdown structure (WBS), entered into the cost control system, and project costs are properly allocated, managed, collected, analysed, forecast and reported.

Planning and Programming Procedure describes how a uniform approach is taken to the planning, programming and monitoring of projects for control and recording of progress against a consistent base for contractual and performance comparisons.

Subcontracting, Purchasing and Hiring Procedure describes the manner in which all works carried out, and material, plant and equipment supplied and purchases by the Division, conform to specified requirements and a uniform approach is applied in dealings with Subcontractors and Suppliers.

Site Diary outlines the process for recording important events and problems on site on a daily basis.

Control and Supervision of Works Procedure establishes a mechanism to identify and manage risk in order to ensure optimisation of a project outcome.

Project Finalisation Procedure describes all matters required to finalise a project are closed off in the most efficient and effective manner and lessons learned from the project are recorded for future reference.

### 33. Terms and Definitions

**Method Statement:** A document which provides the assigned workforce with details on who, what and how a specific product, process or activity will be carried out, inspected and tested, etc to ensure conformance with specified or statutory requirements.

**Monitor:** To check, supervise, observe or record progress of an activity, action or system on a regular basis in order to verify compliance, conformance or changes from accepted requirements.

**Supplier:** A third party who supplies goods or services to Fulton Hogan.

### 34. Appendices

Appendix A – TBA

Appendix B – TBA

### Revision History

Rev	Revised By	Reviewed & Approved By	Date	Description/Summary of Changes
0	S. Aga	A. Vasilaras	06/11/12	Initial issue for use.

Appendix R - Appendix 40 to Exhibit A to the Upgrade Project Deed

**Appendix 40 Initial Community Involvement Plan**



## Initial Community Involvement Plan

**PROJECT: HILLS M2 LANE COVE ROAD RAMP**  
**CONTRACT No.: TBA**

**CONTROLLED COPY NO: e-copy**

### DISTRIBUTION LIST OF CONTROLLED COPIES

Copy No.	Issued to	
1	Fulton Hogan Construction	Project Manager
2	Hills Motorway – Client	Client's Representative
3	Roads & Maritime Services of NSW	RMS's Representative
4	SKM – Independent Verifier	Independent Verifier's Representative

Originated & revised by:  
Katrina Brown – Community Relations Coordinator

Reviewed and authorised by:  
Arthur Vasilaras – Project Manager

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## Acronyms and Definitions

CIP	Community Involvement Plan
CRC	Community Relations Co-ordinator
HML	Hills Motorway Limited
PCG	Project Control Group
PMP	Project Management Plan
RMS	Roads and Maritime Services
SWTC	Scope of Works and Technical Criteria
<b>Stakeholder:</b>	Anyone who has a current or future interest in the project.

## 1. The Community Involvement Plan

### 1.1. Purpose

The purpose of this plan is to describe how the project team proposes to manage community and other stakeholder participation throughout the detailed design development phase, construction phase and project opening phase.

The purpose of the stakeholder participation process is to ensure there is appropriate information provision and where necessary interface and discussions with the community and other stakeholders in relation to these phases. The plan aims to achieve minimal surprises and impacts on the local community and other key stakeholders.

This CIP interfaces with the other associated plans, in particular the Project Management Plan and Traffic Management and Safety Plan, which together describe the proposed overall project management system for the Project.

This CIP is applicable to all staff, employees and subcontractors throughout the duration of the contract until project completion and its implementation and ongoing development will be managed by the Project Control Group (PCG).

### 1.2. Requirement Matrix

The requirement matrix that is accompanied with this plan is developed to assist users and reviewers to identify where various elements of RMS requirements are addressed in this plan in particular to Appendix 14 of SWTC.

### 1.3. Focus of Plan

The focus of the plan is to:

- To provide a consistent point of contact for community members seeking information about the project or those who have concerns about any aspect of the project.
- To ensure that all relevant community issues are known and taken into account in the detailed aspects of construction.
- To maintain a database of enquiries for reference when required, and to enable monitoring of community interest in the project.
- To ensure that community members and stakeholders are kept aware of progress and milestones of the project.
- To ensure that community members and stakeholders are kept aware of operations that may affect them in some way, and of intended traffic interruptions and changes, work outside of normal hours, and so on.
- To ensure that the Client is advised in time of potential media events.
- To work in close cooperation with the Client representatives.

#### 1.4 Elements of Plan

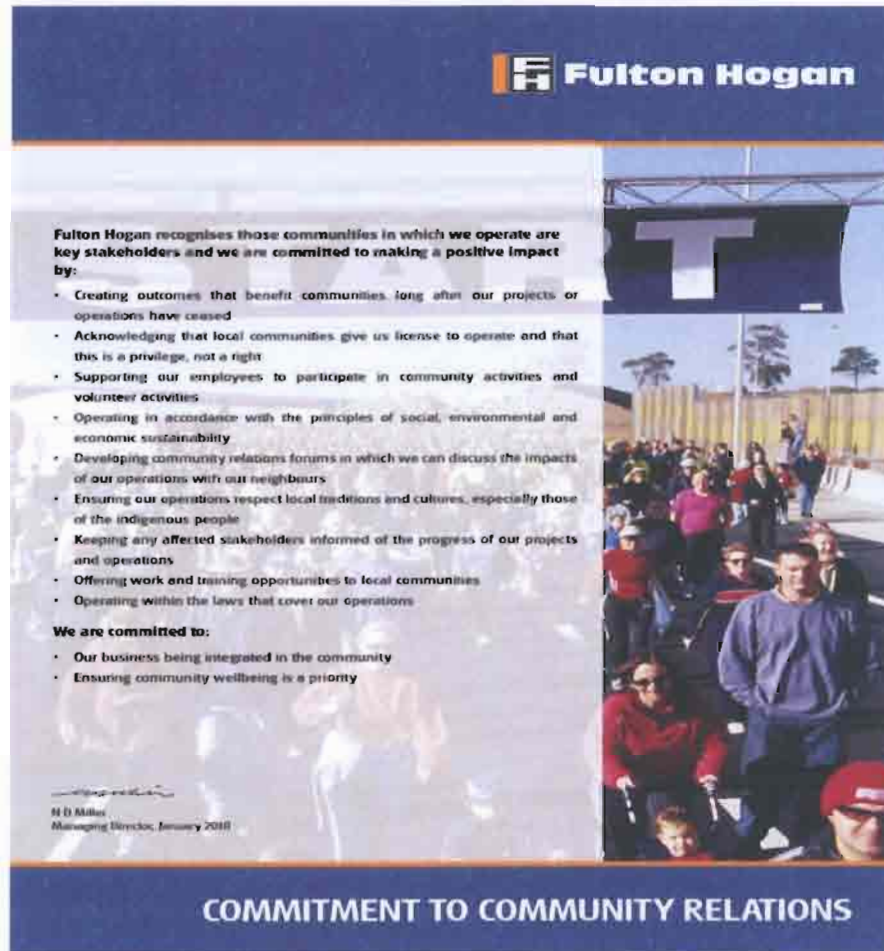
The key elements described in this plan include:

- Project description.
- Main community issues.
- Control measures.
- Community involvement plan strategies.
- Key Personnel.
- Key stakeholders.
- Measurement, analysis and improvement.

#### 1.5 Fulton Hogan's Commitments, Policies and Standards

Fulton Hogan recognises the importance of stakeholders for each of its projects. Stakeholders include internal stakeholders (others parties within Fulton Hogan, including sub-contractors) as well as external stakeholders, which include the community where the project is located as well as agencies or groups that have an interest and or say in the project's outcomes. Fulton Hogan is committed to establishing a positive working relationship with all stakeholders and building on good will towards stakeholders affected by the projects undertaken by Fulton Hogan.

Fulton Hogan is committed to not only upholding its responsibilities and obligations as detailed in the relevant Project documents, but to do so in an open, consultative and inclusive manner. This is the Fulton Hogan way of doing business. This culture is founded on our corporate community management mission, 'Commitment to Community Relations'.



## 2. Project Description

The M2 Lane Cove On Ramp Project is a Design and Construct (D&C) Project, which involves designing and constructing of a new eastbound on-ramp from Lane Cove Road to the M2 Motorway at Macquarie Park with motorway widening between the new ramp and the existing Delhi Road eastbound off-ramp.

## 3. Main Community Issues Anticipated

The main community interest is expected to centre on the construction phase in the contract. The main issues of interest are expected to include:

- Being given a genuine sense of involvement and having access to open discussion about progress and relevant matters of interest;

- Concern about a possible changes to local businesses during and following the construction opening, (engaging, i.e. Eden Garden Centre on the implementation of landscaping);
- Timing and duration of traffic switches, delays and interruptions;
- Preservation of the local environment, particularly with respect to water quality, noise and dust during the construction works;
- Contingency planning (risk minimisation) during construction;
- Dealing with any unexpected archaeological sites encountered during the works;
- Satisfying local community expectations as far as is as possible;
- Site amenities and depot for construction contractor during the works; and
- Local employment opportunities and use of local resources and suppliers.

#### 4. Control Measures

All communication and liaison activities involving local residents, businesses and the general public will be carried out through the Community Relations Coordinator (CRC). The CRC will be a single point of contact within Fulton Hogan and will carry out consultation, planning and management of the impact on the community in conjunction with the Principal's (Client's) Communications Officer and other representatives as determined by the Client.

Copies of any newsletters and factsheets releases are to be issued to Client representatives for approval at least three (3) weeks before the expected printing and distribution date if required.

Letters and notices are to be issued to residents and businesses at least five (5) working days before the commencement of works which will significantly disrupt any resident's use of their premises, affect access to their properties or extend working hours outside of normal project working hours.

The letter or notice shall incorporate the nature and location of the works and why it is necessary, commencement date and duration, hours of work, if outside normal working hours and expected impact (general and/or specific) of the works on the community, and provide the 24 hour toll free telephone number and the project's email address ([enquiries@lanecoveroadramp.com.au](mailto:enquiries@lanecoveroadramp.com.au)).

Fulton Hogan will respond within five days to all inquiries or complaints received from the residents or local businesses concerning the construction works to address, clarify or resolve their concerns. Any issues deemed urgent will be processed within 48 hours. Fulton Hogan acknowledges that some businesses may require further investigations beyond the initial response.

## 5. Major Community Involvement Plan Strategies

### 5.1. Community Phone-in Facility

Fulton Hogan will promote a 24 hour 7 day, toll free telephone number (1800 196 266) for use by members of the public. This facility will transition to Fulton Hogan from Financial Close, and maintained for 3 months after the date of completion of construction. This number will be staffed 24 hours per day during the construction period. At other times, a message will need to be left and all enquiries will be followed up on the next working day.

The telephone number will be shown prominently on all newsletters, leaflets, advertisements, fact sheets, on correspondence with members of the public and on the Lane Cove Road Ramp web site.

While members of the public may find this facility a convenient means of raising any complaints about the Project, Fulton Hogan will promote the phone-in facility as a means of providing "comments" and "feedback"; that is, Fulton Hogan will promote the phone-in facility using positive terminology and will avoid the negative term "complaints".

### 5.2. Community email address

The M2 Hills Motorway Limited has established an email address specifically for community feedback on the project. This email will be transferred to Fulton Hogan Financial Close and maintained for three months after project completion. The email address [enquiries@lanecoveroadramp.com.au](mailto:enquiries@lanecoveroadramp.com.au) will be shown prominently on all newsletters, leaflets, advertisements, fact sheets, on correspondence to members of the public.

The inbox will be monitored daily by the CRC. Responses to incoming emails will be drafted by the CRC and if necessary approved by the Clients Communications Officer before the reply is sent.

### 5.3. Letter Box Drops

A prime objective of the Fulton Hogan Community Involvement Plan is to ensure that local community members and stakeholders are kept aware of operations that may affect them in some way, and of intended traffic interruptions and changes, work outside of normal hours, and so on. Fulton Hogan expects that a letter drop will be an effective means of ensuring that local people are aware of the detail of aspects of the works that most affect them. This will be used to supplement advice in local media such as on radio and in the newspaper, all in conjunction with Client.

To ensure that this can be implemented smoothly when required, a format for leaflets for letterbox drops will be established. The leaflets will conform to Client guidelines for presentation and style and will display the RMS and Hills logo.

Some letter box drops may be carried out jointly with the current M2 Upgrade Contractor when works are being undertaken concurrently within close proximity (within 200m of the project limit of works).

#### 5.4. Website

The M2 Hills Motorway Limited has created a website to manage the community issues and the maintenance and up keep of the website will transition to Fulton Hogan for the duration of the Project and three months after project completion. All web updates will be submitted to RMS for approval.

The project website to be maintained is [www.lanecoveroadramp.com.au](http://www.lanecoveroadramp.com.au).

#### 5.5. Community Contacts Register

Fulton Hogan will maintain the HML Community Contact Register associated with the M2 Lane Cove Road On-Ramp.

Fulton Hogan will establish and implement procedures compatible with corresponding Client systems for dealing with verbal and written complaints. Fulton Hogan will maintain the register and implement the associated procedures from the start of construction until the date of completion of construction.

Fulton Hogan will use this register of contacts:

- To track and close-out complaints and the like;
- As an indicator of progress in fostering positive attitudes among the community and road users in general; and
- To track the distribution of communication material, including notifications.

Management of the HML Community Contact Register and associated procedures will be part of the Fulton Hogan Quality Plan, and will be a responsibility of the Community Relations Coordinator.

Fulton Hogan will issue periodic notifications to HML through the Community Contact Register.

#### 5.6. Notification to HML and RMS Schedule

The following early notification schedule will be followed for notifying the HML and RMS of any construction activities which may impact on the community. Public will be notified 7 days prior to the commencement of any works.

**Notification Schedule**

Construction Activity	HML and RMS Notification Period (includes 1 week public notification requirement)
Work at night (any time between 8pm and 5am) for High Impact works	At least 3 weeks in advance
Work at night (any time between 8pm and 5am) for Low Impact works	At least 2 weeks in advance
Work on weekends (including public holidays)	At least 2 weeks in advance
Major changes to configuration of road traffic	At least 4 weeks in advance
Impacts on pedestrians and/or bicycles	At least 2 weeks in advance
Commencement, rescheduling or completion of key construction activities	At least 4 weeks in advance
Other activities not identified above which may impact on the community stakeholders	At least 2 weeks in advance
Urgent changes to Contract Program	As early as possible, preferably at least 7 working days in advance
Any form of community protest on site	Immediately
Completion of work	At least 6 weeks in advance followed by weekly updates on progress

**5.7. Media Events**

No statements or provision of information is to be made to any media or political representative or their staff. Any enquiries from the media will be referred to the RMS Media Unit and HML.

RMS and HML will manage and arrange all official media events and will be responsible for co-ordinating all community, media and political participation in such events, in consultation with Fulton Hogan. Fulton Hogan will coordinate site logistics in preparation for and during media events if required by the Client.

**5.8. Evaluation of CIP Actions and General Community Outcomes**

As part of the Quality Plan, and as a central part of the management of the community involvement processes, Fulton Hogan will periodically evaluate and report on activities conducted as part of the Community Involvement Plan (CIP). The CIP will be monitored and reviewed on a regular basis.



## 6. Roles of Key Personnel

### 6.1. Fulton Hogan Project Manager

The Fulton Hogan Project Manager will have overall accountability for implementation and ongoing review and evaluation of the CIP. The responsibility for implementing and reviewing the CIP and evaluating the implementation will be delegated to the CRC who will report directly to the Project Manager.

### 6.2. Community Relations Coordinator (CRC)

The CRC will be responsible for achieving the aims and objectives of the CIP by implementation, maintenance, ongoing proactive review and evaluation of the CIP Actions.

Refer to the Project Management Plan (PMP) for further details of roles and responsibilities, including the Project Organisational Structure.

## 7. Stakeholder Identification

Fulton Hogan will maintain a database of stakeholders, including contact information, comprising stakeholders. It will include the following:

### Local Stakeholders

- Ryde City Council
- Owners and occupants of land adjacent to the project
- Members of the local business community
- Local bus operators (school services) / transport companies
- Other local stakeholders and representatives as appropriate
- Road users

### Government Departments and Authorities

- Commonwealth Department of Transport and Regional Services
- NSW Department of Planning
- NSW Department of Environment, Climate Change and Water (including National Parks and EPA)
- NSW Police and Ambulance Departments
- Fire Brigades NSW and Rural Fire Service
- NSW State Emergency Services
- Sydney Catchment Authority
- Hawkesbury Nepean Catchment Management Authority
- NSW Heritage Office
- Local Member

Services and Local Government

- Ryde City Council
- Telstra
- Ausgrid
- Jemena
- Sydney Water
- AAPT
- Optus

## 8. Measurement, Analysis and Improvement

For the Purpose of this Plan, the process for measurement and improvement, including corrective actions, is addressed in the QMP.

## 9. Procedures

The following procedures are available on Fulton Hogan Intranet and they are available to external parties upon request.

[Communications Manual](#) provides a systematic approach, methodologies and tools that Fulton Hogan uses to engage, consult and inform its internal and external stakeholders.

[Media Management Procedure](#) sets out the necessary media protocols that employees are expected to follow at all times.

## Revision History

Rev	Revised By	Reviewed & Approved By	Date	Description/Summary of Changes
0	S. Aga	A. Vasilaras	06/11/12	Initial issue for use.
1	A. Vasilaras	A. Vasilaras	22/11/12	Amended due to Client Comments.
2	A. Vasilaras	A. Vasilaras	06/02/13	Amended to incorporate RMS Comments

**Appendix S - Appendix 41 to Exhibit A to the Upgrade Project Deed**

**Appendix 41 Initial Work Health and Safety Plan**



# Initial WHS Management Plan M2 Upgrade

**PROJECT: M2 LANE COVE ROAD ON RAMP PROJECT  
CONTRACT No.: TBA**

**CONTROLLED COPY NO: e-copy**

**DISTRIBUTION LIST OF CONTROLLED COPIES**

Copy No.	Issued to	
1	Fulton Hogan Construction	Project Manager
2	Client Representative – Transurban	Project Authorised Delegate
3	Independent Verifier - SKM	Independent Verifier's Director

Originated and Revised by:  
Bill Crawford – NSW Safety Manager

Reviewed and authorised by:  
Arthur Vasilaras – Project Manager

\_\_\_\_\_  
(Signature/Date)

\_\_\_\_\_  
(Signature/Date)

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#### Acronyms

D&C	Design and Construct
PMP	Project Management Plan
SWMS	Safe Work Method Statement
KRA	Key Result Area
WHSMP	Workplace Health and Safety Management Plan
WRA	Workplace Risk Assessment



## 1. Introduction

### 1.1. Purpose and Scope

The M2 Lane Cove On Ramp Project is a Design and Construct (D&C) Project, which involves designing and constructing a new eastbound on ramp from Lane Cove Road to the M2 Motorway at Macquarie Park with motorway widening between the new ramp and the existing Delhi Road eastbound off ramp.

Key features of the project are:

- A new on-ramp from the southbound carriageway of Lane Cove Road to the eastbound carriageway of the M2 Motorway.
- Widening of the eastbound carriageway of the M2 Motorway by one additional lane for around 600 metres from the new on-ramp extending to the beginning of the existing eastbound Delhi Road off-ramp.
- Widening of the Wicks Road Bridge to facilitate the additional eastbound lane.
- A new toll point at the on-ramp.
- Additional traffic management systems (including an over-height detection system using existing Variable Message Signage and Closed Circuit Television (CCTV) coverage of the new on-ramp and alterations to the Intelligent Transport Systems.
- Finishing works including line marking, lighting, signposting, site clean-up, restoration, landscaping and revegetation of areas.

This WHS Management Plan (WHMSP) describes how the Project team will undertake the construction of all works associated with the Project in compliance with the Work Health and Safety Act and Regulations 2011 and the requirements of all applicable Legislation, Regulations, Codes and Standards. The plan will comply with the provisions of the WHS Legislation regarding a duty to consult, cooperate and coordinate activities with all persons who have a work health and safety duty.

This WHMSP will meet the requirements of the Lane Cove Road Ramp D&C Deed, and warrants that it will provide people, materials, resources and systems to properly perform the Works and address all OHS issues. Fulton Hogan will require the people to be competent, experienced and qualified to carry out the Works.

WHMSP interfaces with the other associated plans, which together describe the overall management system for the Project, in particular with the Project Management Plan (PMP), Quality Management Plan, (QMP) Environmental Management Plan (EMP) and the Traffic Management and Safety Plan (TMSP).

### 1.2. Structure of the WHS Management Plan

The structure of the WHS Management Plan is aligned to AS/NZ 4801:2001 Occupational Health and Safety Management Systems and Guidance For Use. This standard enables a structured planning process, systematic implementation and effective monitoring and evaluation of the WHS System.

This WHMSP will include

- A description of the Project and how it is proposed to be delivered
- Project Safety Activities and Requirements, Roles and Responsibilities
- Authorities Reporting, Meetings and Communications
- Safety Inspections, Auditing, Compliance, Records, and
- Management of Documentation and Records.



The Project WHSMP will contain site specific Safety Management Plans and Safe Work Method Statements that adequately address all the safety issues and high risk activities particular to the project.

The WHSMP will be reviewed and submitted progressively to suit the milestones and construction stages nominated within the Project.

The latest revision of this plan is available on the Fulton Hogan Infolink server. If any unsigned hard copies of this document are printed, they are valid only on the day of printing.

Attachments/Appendices to this plan can be independently revised.

### 1.3. Project Milestones

The Project Milestones are:

Milestones	Duration	Date
Design Completion <sup>1</sup>	22 weeks	tba
Construction Completion <sup>2</sup>	58 weeks	tba
2yr Maintenance	104 weeks	tba

<sup>1</sup>Design sufficient to enable construction commencement

<sup>2</sup>Subjected to any extensions of time during the course of the contract

### 1.4. Schedule of Hold Points

Clause	Point	Description
3.2	HOLD	Submission of the Project WHS Management Plan
4.6	HOLD	Verification of corrective action
4.8	HOLD	Verification that the site personnel have been inducted

### 1.5. Definitions

**AS / NZS:** Australian and New Zealand Standard

**Construction Work:** Means any of the following:

- Building, including the construction (including the manufacturing of prefabricated elements of a building at the place of work concerned), alteration, renovation, repair, maintenance and demolition of all types of buildings,
- Civil engineering, including the construction, structural alteration, repair, maintenance and demolition of, for example, airports, docks, harbours, inland waterways, dams, river and avalanche and sea defence works, roads and highways, railways, bridges and tunnels, viaducts, and works related to the provision of services such as communications, drainage, sewerage, water and energy supplies,
- Excavation conducted for the purposes of building or civil engineering, including the

excavation or filling of trenches, ditches, shafts, wells, tunnels and pier holes, and the use of caissons and cofferdams, but not excavation work at a coal workplace or mining workplace for the purposes of extracting minerals or quarry product.

**High Risk Construction Work:** means construction work that:

**Shall:** Mandatory

**SWMS:** Safe Work Method Statement

**WHS Regulations:** Work Health and Safety Regulations 2011

## 1.6. Key Risk Areas

Fulton Hogan Safety Initiative for the Project is to address specific high-risk activities and focus directly on the goal of Zero Harm. The "critical risks" already developed within Fulton Hogan are "Working with Electricity", "Working with Traffic", "Working with Mobile Plant and Equipment", "Working with Bitumen" and "Fall Prevention". These five critical risk groups have individually developed systems to manage the unique risks inherent to each area.

This Project presents a number of safety challenges that are required to be dealt with by the members of the Project team. The WHSMP will adequately address all OHS issues particular to the site including those matters identified in DCM G22 – Occupational Health and Safety and Lane Cove Road Ramp D&C Deed

Key risk activities already identified for the Project works include but limited to:

- Working in close proximity to high volumes of moving traffic
- Utilities (Gas, Electrical and Communications) working underground and overhead services
- Access/Egress from Site
- The management of pedestrians and cyclists through and around the work site.
- Working at heights
- Working the vicinity of moving plant

The Workplace Risk Assessment (WRA) that is appended to this Plan addresses the key risk activities and identified hazards in regard to safety and the environment. The documented risk assessment and control plan will be completed in accordance with the requirements outlined in the NSW Government OHS Management System Guidelines and will be relevant to the construction stages of the Project.

The WRA will be reviewed monthly or under any of the following situations:

- there is evidence the risk assessment is no longer valid; or
- subsequent injury indicates the assessment of the risk may not have been adequate; or
- significant changes are proposed in the work that is being carried out.

1.7. Health and Safety Policy



# Fulton Hogan

# Health & Safety

Fulton Hogan is committed to:

- Preventing injury
- Providing a safe workplace and safe equipment
- Providing effective safety training for all Fulton Hogan employees
- Complying with all applicable health and safety legislation
- Establishing and insisting upon safe methods and safe practices at all times
- Developing a personal responsibility for safety
- Conducting regular safety audits
- Identifying and managing all risks and hazards
- Monitoring employees fitness and health
- Establishing measurable objectives to ensure continual improvement in the management of occupational health and safety
- Working together to eliminate injury
- Consulting with employees on matters of health and safety that affects them
- Communicating this Health and Safety Policy to Fulton Hogan employees and other interested parties

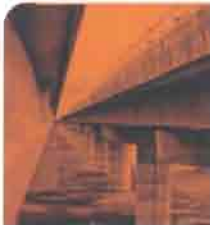


- Maintaining accreditation to the Federal Safety Commission OHS Scheme
- Maintaining certification to AS/NZS 4801 as part of the Fulton Hogan Integrated Management System.
- This policy will be reviewed every two years.

**WE BELIEVE THAT:**

- ▶ **EVERY JOB CAN BE DONE SAFELY AND WITHOUT INJURY.**
- ▶ **SAFETY IS EVERYONE'S RESPONSIBILITY.**
- ▶ **A SAFE AND HEALTHY OPERATION IS AN EFFICIENT OPERATION.**



Nick Miller  
Managing Director  
September 2012


[www.fultonhogan.com](http://www.fultonhogan.com)

## 1.8. Organisational Chart

The Organisational Chart is located with the Project Management Plan

## 1.9. Project Delivery Strategy

The WHS Management Plan acknowledges the defined stages that will occur during construction. The Project WHSMP will be submitted for review to reflect any changes in high risk activities carried out in for the duration of the project.

The WHSMP will be reviewed periodically as Fulton Hogan's IMS allows for implementing changes to Project Management Plans. This will occur specifically if the documents:

- are not adequately addressing the Project requirements, are causing nonconformity;
- are no longer representing current practice or as a result of adverse audit findings; and
- are no longer representing Fulton Hogan's current or appropriate practice.
- if directed or notified by the Client Representative that this Plan and the associated procedures do not comply with the Project Deed.

This is also includes the following requirements:

- Changes in Project management processes;
- Changes identified by the continuous improvement of processes;
- Changes in law;
- Changes in design;
- Changes in construction sequencing, staging, methodology;
- Changes in resourcing;
- The status and progress of the works;
- Changes in access to the Site;
- Variations (both positive and negative);
- Changes in the design and construction processes, including the use and development of new designs and materials;
- New design and construction processes requiring documentation which this Plan does not address; and
- Any other event or circumstance impacting the delivery of the Project.

The changes must:

- Remedy the deficiency in the Management Plans; and
- Not reduce the effectiveness the control and supervision of the works.

## 2. Safety Team

The Project Safety Team, for the Project, will comply with the provisions of the WHS Legislation regarding the duty to consult, cooperate and coordinate activities with all persons who have a work health and safety duty. The WHS Manager is given the primary responsibility for ensuring that the Project WHS Management Plan is fully implemented on the Project and to ensure the safety culture is instilled in the Project.

### 2.1. Responsibilities and Authorities

The purpose of this section is to provide an organisation overview of how safety efforts are controlled, including a description of the general responsibilities of persons employed by the Project.

At a minimum the following responsibilities apply for the management of safety and health at the Project.

### 2.1.1. Operations Manager

#### Responsibilities:

- Accountable for the safety performance of the Project.
- Responsible for ensuring all work is planned in such a manner that it can be undertaken safely and in compliance with Australian OHS legal requirements, Australian Standards and other requirements such as Code of Practice, Contract Instructions.
- Provide adequate leadership and resources to meet the health and safety objectives and to implement the strategies that will contribute to the achievement of the corporate vision and objectives as set out in the Fulton Hogan Zero harm Strategy Plan.
- Act in a manner that consistently acknowledges a non-delegable duty of care for safety and for providing positive leadership support and showing ongoing commitment to the Project's safety culture.
- Ensure systems are in place so all safety critical items are identified and determine how compliance with safety requirements for those critical items will be assured.
- Ensure the targets and objectives for the Project are briefed and fully understood by all employees and subcontractors.
- Report to the Principal regarding activities and operations which specifically include providing regular safety reports and audit findings and demonstrating ongoing reviews of management processes as a result of those reports and findings.

### 2.1.2. Project Manager

#### Responsibilities:

- Ensure safety for the defined scope of Project work.
- Apply this plan throughout all phases of their allocated Project for the scope of work.
- Through the Manager Procurement, ensure the contract documentation clearly states the requirements for contractors to address safety in relevant work processes including safety in design. Facilitate safety input to design process through the various Project groups.
- Take account of safety in the review of Designer's and Contractor's Submissions.
- Review professional services contractors', contract managers', administrators' and contractors' safety management plans.
- Monitor the safety performance of professional services contractors, contract managers, administrators & contractors
- Hold, in conjunction with contractors, consultative safety inspections.
- Arrange and participate in safety audits of contractors, verifiers and contract managers.
- Ensure the health, safety and welfare of those employees and others under their area of responsibility whilst at their place of work or whilst engaged on Project activities at other locations.
- Ensure systems are in place so all employees and affected contractors under their control are appropriately trained in their job tasks and associated procedures.
- Ensure all accidents and near misses are reported, recorded and investigated.
- Ensure safety inspections of the worksite and activities are being performed on a monthly basis, or more frequently if required in high risk locations.
- Take accountability for any visitors/contractors, by ensuring systems are in place so they are aware of specific site risks, safety arrangements and emergency procedures.
- Ensure that Project systems are adequate, understood and observed by all persons working in or visiting these areas. This will include making suitable arrangements for planning and control, identification of hazards and wherever possible, the elimination

of associated risks. They will also ensure that there are appropriate systems for measurement of risk and monitoring of control measures.

- Contribute to the achievement of the Project corporate vision and objectives of Zero harm

### 2.1.3. WHS Manager

Responsibilities:

- Be based in the Project's site facilities for the duration of the Project activities at the Site; and will be allocated to WHS management on a fulltime basis until the Date of Completion;
- Identify and address the Projects compliance obligations.
- Ensure all SWMS, regardless of whether they are authored by the Contractor or Subcontractors, are listed on a consolidated SWMS register. The Project will ensure that all SWMS are kept as required by the WHS Legislation.

### 2.1.4. WHS Coordinators and Safety Personnel

Responsibilities:

- Apply professional safety management to the Project and provide safety support activities to the Project Managers.
- Participate in the PST as required.
- Collate the monthly Safety Performance Report.

### 2.1.5. Site Managers/Engineers/Supervisors/Project Staff

Responsibilities

- Front-line management is responsible for the assessment of risks to the health and safety of employees, protection of the environment, and others that may be affected by the work operations. They will identify specific preventive and protective measures to be taken and ensure that employees under their direct control, including temporary workers, are properly instructed and trained to carry out the work. They are also responsible for carrying out appropriate SHE surveillance, ensuring mitigation measures are in place and for monitoring of the safety and environmental systems of work for both company and sub-contractor's activities.
- Are responsible for ensuring that sub-contractors and other agencies are formally vetted and approved at sub-contract tender stage, and that they will apply safety standards fully consistent with that of the Project partners.
- Contribute to the achievement of the Project corporate vision and objectives of Zero harm

### 2.1.6. Employees and Temporary Workers

Responsibilities

- Complete Project specific induction and accept responsibility to act in a safe manner at all times and to work within the safety systems developed for their workplace.
- Play a positive role in supporting the organisational safety culture, which involves promoting and demonstrating safe behaviours' and practices, identifying continuous improvement opportunities, reporting accidents and near misses and identifying hazards and unsafe acts.
- Ensure the health, safety and welfare of self and ensure others are not affected by their safety acts or omissions.
- Comply with the requirements of safety policy, procedures and other safety management requirements.
- Comply with all reasonable instructions given unless it may adversely affect the health and safety of self and others.

- Take accountability for implementing systems for the safety of visitors/contractors to ensure they are aware of specific site risks, safety arrangements and emergency procedures.
- Prompt reporting of occupational health and safety incidents to their supervisor or manager.
- It is the responsibility of all employees, including temporary workers, to co-operate with management in the implementation of the SHEQ policy, and to carry out their activities in a manner with due regard to the health and safety of both themselves and others and the impact that they or others may have on the environment in which they operate. They should also report any concerns to their line manager or supervisor.
- Contribute to the achievement of the Project corporate vision and objectives of Zero harm

#### 2.1.7. Project Safety Representatives

Responsibilities:

- Discharge their duties as stipulated under the relevant legislation and resolve conflict in their capacity as the Safety Representative.

#### 2.1.8. Subcontractors

Responsibilities:

- Complete the Project pre-qualification assessment
- Conform to Safety Management System and any Agreements.
- All subcontractors are required to submit any safety management plans, Safe Work Method Statements and other safety plans or documents (as required by this PSMP, the CMS or other specified requirements) to the Project Manager for review. Contractors are required to address all review comments made by Project Manager.
- Provide sufficient information in the form of an approved Safety Management Plan or procedures which clearly outline how their legislative obligations (WHS) will be met including any mandatory Client requirements and Project contract
- Consult and cooperate with Project personnel to ensure health and safety plans are effectively implemented and a safe working environment is maintained
- Provide name and position of their H & S representative in writing
- Provide sufficient performance data and information which will demonstrate the subcontractor's compliance with prescribed performance targets and commitment to continuous improvement
- Complete designated safety activities and submit weekly and monthly performance reports to the Project as required
- Implement disciplinary procedures when any of their employees fail to comply with their responsibilities.
- Report safety incidents that occur while completing work on the Project.
- Implement WHS generally during the Construction Phase.
- Contribute to the achievement of the Project corporate vision and objectives of Zero harm

### 3. Planning and Risk Management

#### 3.1. Project Safety Culture

The Project's Safety Goal is "ZERO HARM" and is shown through the implementation of a comprehensive Project Safety Management System. The Fulton Hogan Health and Safety Policy recognise the fundamental right people have to be safe in their workplaces. Fulton Hogan's "STAY SAFE" Program promotes Fulton Hogan's Safety culture and values in order to drive safety behaviours.

The Safety Team is committed to creating a safety culture that can deliver the highest standards of WHS and this will be done through the engagement of individual employees, corporate and strategic partners.

The Safety Management System addresses the commitment to review and comment on current work methods and consults on ways to identify and manage risk. With continual involvement of all workers in identifying and understanding the risks associated with their work, the Safety Team will work to eliminate risks and hazards that could result in injury or ill health throughout the life of the Project.

### 3.2. Golden Rules

The Golden Rules are a pivotal safety control for all work activities that involve Fulton Hogan Critical Risk Groups. The Golden Rules are mandatory on all Fulton Hogan workplaces.

The Golden Rules are:-

You must use **Fail Prevention** when working at heights

You must have a **Permit to Work** for restricted work activities

You must **Verify Isolation** and **Tag Out** before any work begins on any item of plant / equipment

You must have been assessed as competent to operate **Plant / Equipment**

You must always wear your Seat Belt

You must always wear the correct **Bitumen PPE** when working with Bitumen

You must have an approved **Traffic Management Plan** when working around live traffic.

The Golden Rules will be communicated to all as follows:

- In the workplace induction
- In tool Box meetings
- Included in the Fulton Hogan procedures where appropriate
- Included in the SWMS when relevant

All incidents involving noncompliance with the Golden Rules will be reported and recorded as a high risk incident.

For further details relating to the Golden Rules, refer to the [Golden Rules Procedure](#).

### 3.3. Project Safety Objectives and Targets

Fulton Hogan's overall objectives for Safety with respect to this Project are:

- To manage and control the site's safe work environment in a manner that will protect people, property and the environment and also prevent exposing workers to high risk hazards that can seriously affect their health and wellbeing'
- To achieve zero harm
- To prevent injuries occurring on site
- To manage and control the site's safe work environment in a manner that will protect people, property and the environment and also prevent exposing workers to high risk hazards that can seriously affect their health and wellbeing.
- To consult with the site construction work force on OHS issues, and to enhance their commitment to site safety and the prevention of unsafe work practices,
- Comply at all times with, and ensure staff, employees, subcontractors and agents comply with, any Acts, Regulations, local laws and by-laws, Codes of Practice, Australian Standards and the Fulton Hogan Standards, Policies and Procedures



which are in any way applicable to this contract or the performance of services under this contract and, use the same documentation as the Client.

Fulton Hogan will ensure this plan and safe work method statements are developed and implemented in accordance with

- Fulton Hogan Procedures
- Contract Specifications eg DCM G22
- The NSW Government OH&S Management System Guidelines
- Any other Acts, regulations, local laws and by-laws, Codes of Practice, Australian Standard.

These Project objectives will be met by conducting regular audits and inspections, through good leadership, commitment and continual training as detailed in the Project's PMP.

The Safety Aims of this project are a combination of both lead and lag performance indicators:

- Achieve Zero Harm;
- Zero Harm or only low rated incidents.
- No repeat of the same or similar incident.
- Conduct Project toolbox meetings on a weekly basis.
- Meet inspection, monitoring and compliance requirements
- >95% compliance against the Project Safety Plan inspection schedule requirements inclusive of Work Task Observations, Workplace Inspections Behavioural Safety Audits.
- 100% compliance with PPE requirements.

A monthly report will be completed and record FAC, MTI, LTI and Notifiable Incidents.

The Corporate Safety Objective and Targets are contained within the [Safety Strategic Plan](#)

### 3.4. Safety Legislation, Guidelines, Standards & Advice

Fulton Hogan has access to a safety law register maintained by Environmental Essentials Pty Ltd. This register is accessed via the internet and contains links to all up to date and relevant legislation and guidelines applicable to this Project.

The State Safety Manager shall update the workplace of any legislative changes and forward through to the Safety Team for review and implementation where applicable.

### 3.5. Safety in Design

Design Management is the process of planning and controlling the design elements through any stage of a construction project, in order to produce a solution that incorporates the inputs of stakeholders in the most cost effective manner and within the constraints imposed.

Particular attention is directed at identifying and assessing possible hazards and risks at safety reviews undertaken during the earliest stages of design as well as any modification activity. The Project Manager, in conjunction with Design Team will ensure that all design documentation generated is reviewed and verified by appropriately qualified personnel for technical, quality, safety and environmental requirements prior to issue. Key activities will be carried out including hazard identification workshops held early in the design phase to identify safety issues for operation and maintenance for which controls need to be included in the designs at each stage.

Safe design shall be managed in accordance with the Design Management Procedure and shall include mechanisms for risk management, communication and consultation and design review. The Design and the Safety Teams will interface via regular scheduled meetings, including workshops and design meetings to determine that all safety assurance documentation is undertaken.

For further details relating to the safety in design, refer to the [Design Management Procedure](#)

- [Design Management Procedure AU\\_0000981](#)

## 4. Risk Management and Hazard Identification

### 4.1. Workplace Risk Assessment

All foreseeable safety hazards associated with the Project and its ongoing operation and maintenance will be identified and managed so that the risk is managed to a level that can be demonstrated to be tolerable utilising the Fulton Hogan Risk Management Procedure.

The identified hazards will be recorded in a Workplace Risk Assessment, (WRA) for the Project. Once the hazards have been assessed using Fulton Hogan's Risk Assessment Matrix (RAM), controls will be identified to be implemented in order to eliminate or minimise the risks posed by such identified hazards and assign responsibilities and resources required to implement the controls.

Human Factors will be considered in the safety analysis to demonstrate due consideration has been made of the users and their interactions with equipment, systems, processes and environments within the scope of the Project.

This assessment shall be maintained on site and shall be reviewed at a minimum every 6 months.

At the occurrence of an emergency or incident, all risk assessments will be provided to the Supervisors in charge. An incident investigation will be conducted in consultation with staff and sub-contractor employees. All actions determined necessary following risk assessments, investigations and consultation will be documented. Further explanation of this process can be obtained from Incident Investigation, Reporting & Notification Procedure.

- [Risk Management Procedure AU\\_00002525](#)
- [Risk Register AU\\_00002672](#)
- [Risk Assessment Matrix AU\\_00003592](#)
- [Workplace Risk Assessment AU\\_00009422](#)

### 4.2. Safety Documentation

All safety documentation (procedures, forms, templates) which is approved for use within Project SMS will be stored in an electronic document management system known as InfoLink. All staff that utilise a Project computer will have access to InfoLink.

To facilitate ease of navigation, as documentation is uploaded to InfoLink, it will be hyperlinked to other referenced system documentation. This will enable all relevant documents to be sourced without having to return to the main navigation and re-search the data base.

#### 4.3. Safe Work Method Statement (SWMS)

Work Place Health and Safety legislation requires an employer to identify foreseeable hazards, assess the risks of those hazards and eliminate the risks or, if eliminating the risks is not reasonably practicable, control the risks.

A safe work method statement (SWMS), is to be developed for **all** activities and any high risk construction work, as identified in the WHS Legislation, where work cannot be performed where the uncontrolled risk is not as low as reasonably practical. All Fulton Hogan SWMS are to be completed on the Fulton Hogan standard SWMS Format

The SWMS will be reviewed and commented on, completed and implemented effectively. Before work commences, all persons involved in the task will have read, understood and signed the SWMS.

A copy of the current reviewed SWMS will be kept on site and be accessible for all site staff at all times.

- *SWMS Template – Constructions ( Project) AU\_00002271*
- *SWMS Flowchart AU\_00003558*

##### 4.3.1. SWMS Register

A register shall be kept and maintained of the Projects SWMS's. A copy of the original SWMS, together with any updates and review sheets are to be filed and located in the site office. The original of the current revision is to be easily accessible to the responsible person for ready reference at all times.

- *SWMS Register AU\_00002272*

##### 4.3.2. Subcontractor SWMS Review

Subcontractors are responsible for the development of SWMS for their scope of work. Subcontractor SWMS are to be submitted in the agreed timeframe, to the respective Project Engineer or Supervisor / Foreperson for review for all works prior to work commencing.

Subcontractor construction activities are not authorised to proceed on site unless subcontractor SWMS have been reviewed by Fulton Hogan using Review of Subcontractor SWMS checklist.

Any deficiencies identified in the subcontractor's SWMS are to be highlighted to the subcontractor. The documents are to be resubmitted for another review by Fulton Hogan. All subcontractor SWMS shall be reviewed by the Project Engineer, Site Supervisor / Foreperson and/or the Site Safety Coordinator or nominated person before any work commences by using the Checklist for Review of SWMS. The checklist for review of SWMS shall be filed with the subcontractor SWMS. If the checklist identifies that the subcontractors SWMS is not adequate no work is to commence until the issues with SWMS has been rectified.

##### 4.3.3. Consultation on SWMS

The supervisor in charge of the activity must ensure that all persons impacted by the SWMS understand the requirements contained in the form and have had the opportunity to comment and recommend possible changes to the SWMS content prior to work commencing. Where new people arrive on site after the commencement of the activity, the person in charge of the activity must ensure that they have been consulted and understand the requirements

contained in the form. A review of the SWMS may also be conducted if requested by a WHS representative.

#### 4.3.4. Changes to SWMS

The SWMS shall be reviewed if there are changes to the work, systems associated with the work, if new or additional hazard information is identified or at the request of a H&S representative.

The failure to produce a SWMS when requested, and evidence showing workers are not complying with the SWMS, a cease work direction will be given until an appropriate SWMS is produced and all workers are in compliance with the SWMS requirements.

- [Checklist for Review of SWMS AU\\_00002273](#)

## 5. Incident, Emergency Preparedness and Response

The setup of Emergency Management for the work site is detailed in the workplaces Incident and Emergency Response Plan.

### 5.1. First Aid Facilities

Prior to occupying the project's site offices, all first aid requirements, suitability, location and accessibility of first aid equipment, contact details of the first aid officers, will be determined.

All workplaces will be provided with first aid facilities as required by the relevant legislation. First Aid Kits shall be provided in Fulton Hogan site vehicles for use by qualified first aiders.

Emergency first aid procedures shall be kept with all First Aid kits. A register of First Aid kits shall be maintained within the Register of Emergency Equipment.

The Project Manager will nominate a person (WHS manager) who will be responsible for organising the tests, the frequency of the tests (6 monthly) and the maintenance of the registers. The register may be on the register of first aid kits form or an equivalent form if supplied by contractors who inspect the first aid kits. A list of the contents of each first aid kit is to be kept with the kit and the kit is to be checked and replenished to maintain minimum levels at least on quarterly basis by a nominated person (First aider). Items are also to be checked for use-by dates and replaced as required.

The location of first aid facilities [in fixed workplaces] shall be detailed on the A3 Emergency Map and displayed on the site notice boards.

At induction, all persons shall be made aware of who the First Aider/s is and of the locations of first aid kits/facilities. The name/s of the First Aider/s shall be displayed on site notice boards.

- [Register of First Aid Kits AU\\_00001909](#)

### 5.2. Fire Extinguishers

Fire extinguishers of the appropriate type shall be located in office complexes, workshops, and where hot work is to be performed. Extinguishers will be tested every 6 months and the test date recorded on the tag attached to the extinguisher.

The Project Manager will nominate a person (WHS manager) who will be responsible for organising the tests, the frequency of the tests (6 monthly) and the maintenance of the registers.

– [Register of Fire Protection Equipment AU\\_00001893](#)

## 6. Workplace Induction and Training

All employees who will perform work on the construction work site will complete the Site Induction. Regular visitors, delivery drivers and Client personnel who not perform construction work, are required also to be inducted prior to going onto site. The Site Safety Induction will reflect each progressive stages of construction.

All staff (employed by Fulton Hogan, Sub-contractor, supplier, and hire company or self-employed) are not permitted to work prior to:

- Being appropriately inducted;
- Signing of the acknowledgement of induction;
- Have demonstrated competence to carry out the work;
- Successfully completed induction questionnaire
- Producing certificate of competency endorsed by WorkCover or approved equivalent
- Display induction record sticker on their hard hats; and
- Carry induction cards

Induction records including Project Induction Register will be maintained in the site office by the WHS Manager or the delegate.

### Site Specific Induction

The site specific induction is for all persons on site who are not visitors. All persons carrying out construction work must show evidence of the WorkCover General OH&S Induction Training for Construction Work or equivalent. Site specific inductions must be undertaken prior to any work being commenced on site (including the delivery of any equipment). The validity of the induction is for a period of 24 months upon which the person needs to be re-inducted. Also, persons previously inducted who have been offsite for more than two months must be inducted prior to commencing work.

### Visitor Induction

A visitor induction is for those persons who are on site on a “one-off” basis and are not undertaking any type of work.

Visitors will be at all times under the control and supervision of a person who has undertaken the full site induction. Visitors are not permitted to undertake any work while on site.

The Project Manager is responsible for ensuring all persons involved in this project are appropriately trained for the technical functions they are employed to perform and are to be inducted before starting work duties in accordance to the Project Training Plan.

Subcontractors are responsible for providing occupation-specific training for their own workforce. Details of subcontractors' employees' competencies and qualifications will be checked at the time of induction and a photocopy of the record shall be kept on site.

For this project, the training requirements are detailed further in the Project Training Plan.

## 7. Incident Management

### 7.1. Incident Management

All workers are required to report all actual and potential incidents that occur on the project site, irrespective of their relationship to safety, environment or any other subject area.

On becoming aware of an incident, including personal injury, all workers involved will complete a Fulton Hogan incident report. The internal notification of the injury to other Fulton Hogan personnel is detailed and be processed in accordance with the Incident Investigation and Reporting Flowchart.

The process of capturing, managing, determining and managing incidents will follow the Case and Action Management (CAMS) Procedure. The Risk Assessment Matrix (RAM) will be used to determine the incidents risk rating based on the particular details of the incident. The rate will be used to indicate the level of investigation required and the notifications necessary.

– *Incident Investigation, Reporting & Notification Procedure. AU\_0003416*

#### 7.1.1. Federal Safety Commission Incident Reporting

Where an incident report must be submitted to the OFSC, it shall be prepared by the project and forwarded to the General Manager Corporate Services to be submitted to the OFSC.

An OFSC incident report must be completed following:

- All fatalities irrespective of the project value or type (notify immediately to 1800 652 500 and provide report within 48 hours);
- Any incident resulting in a LTI (reporting of AWIs is also encouraged ) where the project value is \$3 million or more (provide report within 48 hours if a Notifiable Incident, otherwise provide report within 3 weeks);
- Any MTI or dangerous occurrence.

### 7.2. Incident Preparedness

The Project Manager will be responsible for ensuring that the site workforce is effectively trained and appropriately prepared to implement the incident control measures needed to respond to an incident under emergency conditions. All person's responsible for implementing and ensuring compliance to the Emergency Response Management Plan on site shall be trained in how to complete an Incident Report, Injury Report & Incident Investigation Report.

The Project Manager will be required to ensure that the assigned workforce:

- Has the capacity and capability to carry out the appropriate actions required;
- Is fully aware of the need to promptly notify and seek the assistance of the Emergency Authorities, as applicable. Such assistance must be immediately requested if the incident is graded as a significant or major incident; and
- Has the appropriate materials and equipment needed to control and handle the incident.

### 7.3. Incident Reporting

All staff, sub-contractors and employees are obligated to report all incidents of which they become aware.

Incidents (including dangerous occurrences and near misses) must be reported to the Project Manager immediately. This requirement is to be a Site Safety Rule and included in the Project Induction.

Incident Reports using Fulton Hogan report form and CAMS Incident Management Tool is to be initiated to report and action incidents including:

- Dangerous occurrence which caused (or had the potential to cause) injury to the work force or to the public or caused (or had the potential to cause) damage to plant and property.
- Lost time or non-lost time work related injuries and illnesses including first aid treatments;

Where an employee requires medical treatment resulting from an incident in the workplace it is important that they are accompanied to the medical centre/surgery/hospital by a Fulton Hogan Supervisor. The accompanying Supervisor must be aware of the availability of suitable duties and be prepared to discuss this with the treating medical practitioner.

All injuries, must be reported to a Qualified First Aid Attendant who will be responsible for recording the date and details of the worker's injury in Fulton Hogan's Incident Reporting System. Details of all incidents (including near hits/misses and dangerous occurrences) shall be recorded, reviewed and actioned by Fulton Hogan in accordance with the established procedures

### 7.4. Incident Investigation

Any injury requiring more than first aid attention must be investigated, including a serious near miss or any incident involving plant or equipment. An investigation report must be completed.

Persons involved in incidents are required to cooperate and assist in the investigation. Investigation reports will be maintained by the Project Safety Manager and submitted to the Project Manager on a monthly basis.

## 8. Safety Monitoring Inspection and Auditing

### 8.1. Reporting, Meetings and Communication Protocols

The Project will implement the following communication strategies throughout the life of the Project. We encourage all staff to be vigilant regarding safety matters and raise any concerns immediately. The Project will utilise the Fulton Hogan CAMS Incident Management System for reporting any incidents. CAMS is a safety management system that helps streamline the safety management and risk management process and includes corrective actions, email notifications and escalations, risk and compliance management.

### 8.2. Safety Performance Report

The Project Manager will ensure the collation of both a weekly Workplace Health and Safety performance report and a monthly Workplace Health and Safety performance report detailing:

- Safety Performance Statistics
- Performance of the Project, paying special attention to the safety goals and targets set
- Safety incidents affecting the community and the associated resolutions (by exception).

This report will be submitted and be reviewed by the Project Team to further the continuous improvement of the Project's safety performance.

### 8.3. Communications Strategies

The following are examples of the communications strategies that will be implemented on the M2 Upgrade Project:

- Safety alerts
- Safety briefings
- Safety toolbox talks
- Safety notice boards
- Safety posters
- Safety signage

### 8.4. Meetings

Safety management review and reporting will take place within the following meetings in order of authority:

MEETING	SCOPE	FREQUENCY
Project Safety Leadership Team	Procedures, compliance, culture, personal behaviour and safety resources.	Monthly
Risk Review	Safety hazards, risk mitigations and controls.	Monthly
Workplace Safety Committees	Workplace Safety Consultative Committees shall be established for all Project worksites as appropriate, and will follow the Consultative Committee Process.	Monthly
Toolbox Meetings	Safety alerts, job specific briefings, hazard awareness.	Weekly (on-site)

These meetings are to ensure the continuing adequacy and effectiveness of the safety management systems and to facilitate commitment to continuous improvement. If issues arise that cannot be resolved at a lower level forum they shall be escalated to the appropriate forum of authority.



The Project acknowledges that effective consultation and participation by personnel is essential for a successful safety and health management system and the desired safety culture to exist. Essential aspects of Project communication, consultation and interface process shall be:

- The communication of the results/findings and control measures / plans associated with any risk assessments carried out to the personnel involved in the work or personnel who may be effected by the risks associated with the work
- The provision and review of the Project risk register and applicable SWMS to personnel and contractors
- The communication of any new Health & Safety risks or risk controls resulting from design changes identified as part of the Change Management Process
- Communicating and consulting new and revised Safe Work Procedures, Policies, Practices and Alerts
- The implementation of Toolbox, Pre-Start Meetings, Health & Safety Committee inductions and other management meetings.

The Project Manager shall ensure a process is implemented and maintained across the operations whereby all new SWMS under review are communicated to the relevant workforce via the site communication processes and that representatives of the workforce are consulted for input prior to the proposed changes being finalised.

Additional Project communication requirements include the use of health and safety promotions to provide topical information, as is the use of a health and safety noticeboard for the posting of health and safety information, incidents, meeting minutes etc.

### 8.5. Communicating and Liaising with External Agencies

Duties holders must consult, co-operate, and coordinate activities with all other persons who have concurrent works and interactions with the project scope. The purpose of the stakeholder participation process is to ensure there is appropriate information provision and, where necessary interface and discussions with the external agencies and other stakeholders.

It is the responsibility of the Project Manager or his nominee to notify the following agencies:

- NSW WorkCover Authority must be immediately notified of all dangerous occurrences and serious incidents by contacting them on [www.workcover.nsw.gov.au](http://www.workcover.nsw.gov.au) or by calling 131050.
- NSW Work Cover Authority must be advised within seven (7) days of all other none life threatening incidents affecting workers and the public.
- Details of any dangerous occurrence, serious injury or incident involving damage to property, affecting the environment shall also be immediately/promptly reported to the M2 Transurban Representative verbally and a detailed written report by issuing them a copy of the Incident Report.
- Interaction in cross over construction activities with all regional utility providers.

All communication with external parties will be undertaken with the project's Community Involvement Plan (CIP). This plan has been prepared in accordance with the RMS's Community Engagement and Communications Manual, (a resource manual for staff, October 2012), and seeks to adopt the relevant principles as outlined by the RMS.

All incident notification and reporting will be undertaken in accordance with Fulton Hogan Incident Investigation, Reporting and Notification Procedure. For incidents requiring notification to the Office of Federal Safety Commissioner, notification will be undertaken in accordance with the Fulton Hogan Federal Safety Commission Reporting Procedure. Fulton Hogan Duties holders must consult, co-operate, and coordinate activities with all other persons who have duties over the same matter

## 8.6. WHS Committees

There are a number of ways that the Project will use to fulfil its legislative obligation to provide employee consultation on the Project.

These include:

- Safety Committees
- Health and Safety Representatives
- Other agreed arrangements.

The elected form of consultation will be open to all personnel and they will be encouraged to attend and participate in consultation meetings and / or review meeting minutes.

The following is the proposed arrangements for this site/facility:

- Safety Site Leadership Team Meetings
- Pre-start and Toolbox Talks
- Project Safety Committee Meetings
- Shift Handover Reports.

## 8.7. Safety Committee Meeting

The objective of the Safety Committee Meeting is to develop and promote measures that ensure the safety of personnel through communication and co-operation between all levels of management and the workforce.

The specific functions of the Safety Committee are to:

- Confirm functions with relevant Legislation
- Review monthly statistics
- Interface HSE concerns
- Field Safety and environment audits
- Monitor trends.

The Safety Committee will meet monthly, at a time and date advised by Principal Contractor or as scheduled by Project Manager.

Committee composition will be:

- Project Manager or delegate
- Health & Safety Representatives
- Supervisors
- List Safety Committee Members
- Chairperson

The Chairperson will be elected during the first meeting. The Chairpersons' primary responsibilities are to distribute the agenda and meeting minutes, and ensure business discussed is relevant. A list of Safety Committee Members and meeting minutes shall be posted on the Site Notice Boards.

## 8.8. Toolbox Meetings

Tool box meetings are used to:

- Discuss tasks and related safety and environmental aspects with the work group
- Discuss any specific safety issues relative to the work environment at the time (e.g. working at heights, environmental conditions). The topic of discussion will change for each toolbox
- Discuss any incidents on the site over the previous period and advise of actions taken
- Discuss all alerts or bulletins distributed within Project and the related impact on this Project
- Discuss the Safety Committee Meeting minutes and actions
- Discuss outcomes and actions from inspections and audits
- Provide a forum for any safety, or other, issues to be raised by the workforce.

The Project, WHS and Environmental Managers and Safety Committee shall ensure all relevant issues and discussion topics are included. Toolbox meetings will generally be facilitated by the Superintendent / Supervisor, and held on a weekly basis and at other times when deemed necessary, such as to discuss urgent issues such as significant incidents on site. Toolbox meeting attendance is compulsory for all employees and subcontractors on site, and attendance will be recorded and monitored using a sign on sheet.

In addition to toolbox meetings, meetings involving discussions on forthcoming activities, topic specific briefings, and safety and environmental talks can also be conducted.

In line with Project focus on safe work procedures aligned to the Project risk profile, relevant high risk task procedures should be reviewed at this forum. These sessions have been developed to result in:

- An increase in employee awareness of the importance of OH&S, across Projects
- Increased ownership of procedures through open discussions and familiarisation
- Familiarity of procedures relating directly to the activities about to be undertaken
- Rectification of practices which have already resulted in minor injury and which if left uncorrected may have the potential to cause serious injury or environmental impact

## 8.9. Pre-Start Meetings

Pre Start meetings will be held prior to commencement of work each day. These meetings are conducted by a supervisor with individual work crews. Attendance at the appropriate pre-shift meeting is mandatory before commencement of work each shift. If an individual is late to work, the supervisor will go review the issues discussed at the pre-shift meeting. Attendance is recorded and monitored by a sign on sheet.

Pre-start meetings are held to:

- Ascertain if there are any implications to changes in the scope of work, work environment, make up of work team, plant and equipment.

- Advise and discuss the planned activities for the day
- Review applicable SWMS / EWMS / permits / authorisations for tasks to be undertaken
- Raise and discuss any specific safety issues relevant to the day's tasks
- Advise impact of any nearby work
- Determine required equipment to undertake the day's tasks
- Discuss other task relevant processes, such as permits, authorisations
- Discuss any hazards reported and incidents that were reported on previous shifts (These are discussed with work team members so they can learn from past events to make their job safer).

Pre-start meetings create a positive safety climate; improves work habits; increases line-management accountability for safety and generates greater crew involvement (which assists with building stronger employee commitment to safety).

## 9. Auditing

### 9.1. Safe Acts Audits

Safe Acts Audits are a safety behaviour observation tool. The purpose of Safe Acts Auditing is to get an indication of the Safety Climate by observing Safe Acts Compliance through the process of observation. The audit score is plotted on a graph, the best score is 100. The Fulton Hogan Safe Acts Audit Procedure details this process.

The audits are to be retained by the WHS Manager or nominated person.

- [Safe Acts Audit Procedure AU\\_00008340](#)

#### 9.1.1. Site Safety Audits

Audits of the WHS Plan are undertaken as part of the process of assuring compliance with statutory requirements and to determine if the requirements of the plan have been effectively implemented.

Audits will be conducted in accordance to the Audit Schedule that is appended to the PMP by the WHS Manager of NSW or nominated person.

Audits of compliance to AS/NZS ISO 4801:2001 on this Project may be undertaken as part of surveillance by a certifying body.

It is acknowledged that the Clients and PV's Representative, may at any time up to the Date of Final Completion, arrange monitoring and audits (including testing) to see if Fulton Hogan is complying with the project's management plans (including the Quality Plan, Environmental Management Plans and WHS Management Plan). Fulton Hogan will provide access to all facilities, documentation, records and personnel including subcontractors that are required. The Fulton Hogan Quality, Environmental or WHS Manager will also be available during this monitoring and auditing process

Audit requirements for this project are outlined in the Project Management Plan (PMP).

## 10. Workplace and Injury Rehabilitation

Fulton Hogan recognises that early and collaborative rehabilitation process provides an injured person with the best chance for making a full recovery to pre injury capability. To this end, Fulton Hogan commits to providing best possible options for all employees requiring the rehabilitation process.

Where an employee requires medical treatment resulting from an incident in the workplace it is important that they are accompanied to the medical centre/surgery/hospital by a Fulton Hogan Representative. The accompanying representative must be aware of the availability of various suitable duties and discuss these with the treating medical practitioner.

To assist Fulton Hogan in meeting its commitment, specialists in rehabilitation OccCorp have been nominated as Fulton Hogan's Injury & Rehabilitation provider. OccCorp must be notified of any injury sustained by a Fulton Hogan Employee on the M2 Parkway by telephoning 1300 666 303.

## 11. Key SMP Management Sub-Plans

It will be identified at time of Contract Award, the development of specialised plans required for the project.

## 12. Safety Documentation for Hazard Control

All document data and records to be generated or provided for during the design, construction, installation and handover of the Project shall be agreed on at time of Award of Contract.

### 12.1. General Site Rules

Site rules include, but may not be limited to, the following:

- High-visibility clothing / vest, long sleeve shirts and long pants, class 1 - laced safety footwear and safety glasses and hard hats must be worn by all personnel at all times, except whilst in the site office. Other items of protective equipment must be worn as needed, or as directed by the site safety coordinator
- Hard hats must be worn at all times when onsite
- Goggles and a face shield must be worn when undertaking any grinding works
- Use of alcohol and drugs is strictly prohibited. Any person found under the influence of alcohol or drugs will be removed from the site
- Any person engaging in horseplay or fighting will be removed from the site
- Personal music players , ipods, mobile phone players, cd players or radios with in-ear headphones are not permitted on site
- Use of mobile phones whilst operating moving plant and machinery is prohibited
- Smoking is not allowed in any amenity building, shed, or administration office. Smoking is not permitted indoors or near doorway
- No pets or children under the age of 18 are allowed on site
- No friends or family permitted on site unless inducted
- On site fuel shall be in applicable storage at all times including fire extinguisher
- Ensure that no person shall proceed across any railway track except at times and places approved by the track safety officer

- All vehicles are to have a flashing light and uhf radio fitted and working, a fire extinguisher with current tag, reverse alarm to be fitted and working. No vehicle is to be driven without a current Australian driver's license and/or ticket of competency
- Plant pre-starts are to be completed every day for all items of plant. Where there is a fault with the plant it should be reported to the site fore person or owner (if it is a subcontractor).
- Speed of vehicles/machinery is restricted to 40 km per hour or lower speed where signed in specific work areas. All vehicles must have fitted and use flashing lights with head lights on throughout the site.
- Seat belts must be worn at all times whilst driving site vehicles and operating powered mobile plant
- Do not cross jersey barriers to cross the roadways. Breaching this rule will lead to immediate exclusion from the site for the offender or/and serious personal injury
- No entry into work areas without positive communication
- Employees will attend a pre start medical prior to starting work
- All personnel are to present themselves in a fit condition to work
- If exclusion zones are in place, controls such as barriers, signage or fencing is considered.

Other rules may be introduced as the project / works proceeds or as a result of recommendations from Tool Box or WHS meeting.

## 12.2. Site Establishment & Security

Necessary measures shall be taken to provide security and protection of the Works and to prevent members of the public from gaining unauthorised access to any sections of the Site closed to the public.

To prevent members of the public entering the site No Entry signage will be displayed where applicable and as per the TMP.

Security fencing/barricades shall be erected to prevent livestock or the public access to closed sections of the site at the;

- Site compounds
- Access points to the Works
- No-Go-Zones
- Vegetated Protection Zones
- Hazardous areas

Site establishment includes:

- Establishing the number and location of lunchrooms, toilets, showers, drinking water and washing facilities.
- Establishing the cleaning and maintenance schedule for all facilities provided.
- Employees, subcontractors, delivery drivers and visitors will be inducted to the location of the facilities as part of their project induction. Feedback or concerns relating to the facilities provided may be given at the time of induction, within pre-start meetings or at

any other time either directly to members of the project team or via the workgroup H&S representative (if elected).

The general workplace environment shall be planned and established to ensure that:

- Work areas can be clearly identified and separated as necessary so that work can be undertaken safely;
- Where there is a risk of falling objects controls are put in place such as exclusion zones;
- Risk of slips, trips and falls are appropriately controlled;
- Surfaces are inspected regularly and maintained;
- Lighting is sufficient; and
- Control measures are in place for hot and cold environments.

### 12.3. Signage

Site signage shall comply with the requirements of the AS 1319 "Rules for design and use of safety signs for the occupational environment".

Constructions sites shall comply with the requirements of the Principal Contractor obligations, which include:

- Signage is clearly visible from outside the workplace;
- Shows the Principal Contractors name and contact number including out of hours; and
- Location of the project office.

### 12.4. Public Safety

Safety of the public and visitors to the site will be managed by implementing the following controls as appropriate:

- Provide security fencing to the Site Office/facilities area
- Erect barricades at strategic locations around the work site as necessary
- Delineate work areas in the vicinity of where public/pedestrian access is likely

When constructing or erecting site fencing; it must be:

- Suitable height to deter entry;
- Constructed from dedicated materials;
- Difficult to climb;
- Difficult to gain access underneath;
- Stable and able to withstand anticipated loads; and
- Secured by installing gates and joints so there is no weak point for entry.

### 12.5. Plant & Equipment

All Plant & Equipment will be managed in accordance with the Mobile Plant Procedure.

Cranes which have a current inspection completed by CraneSafe will be deemed as fulfilling the requirement for a plant risk assessment no more than 12 months old.

All plant where there is a risk of falling 2 metres or greater, shall be fitted with falls protection hand railing or equivalent protection.

Operated plant has blind spots and may prevent the vision of site personal. Blind spots of common plant operating on the project will be communicated and displayed on site.

- [Mobile Plant Procedure.AU\\_00006979](#)

#### 12.5.1. Crane Lifts

For major lifts, such as beam lifts and dual crane lifts a SWMS and a lift study / plan are to be completed.

All lifting equipment is to be tested and tagged in accordance with the requirements of the respective Australian Standard. Equipment which is not tagged shall be considered not to be safe unless compliance records can be provided to show otherwise.

#### 12.6. Trenching & Excavations

All trenching and excavation work shall comply with the requirements of the Trenching and Excavation Procedure.

- [Trenching and Excavation Procedure AU\\_00003404](#)

#### 12.7. Piling & Drilling

All relevant Australian Standards and legislative requirements shall be complied with.

#### 12.8. Blasting

The Australian Standard for Use of Explosives shall be complied with if blasting is to commence on site.

Explosives are only used by a competent person who is licensed and experienced.

Possession, storage, handling and use is to be in line with state/ territory legislation.

#### 12.9. Concrete Pumping

Concrete placement units with delivery booms, both vehicle and static mounted are both design and item registered under Section 6 WHS Regulations.

When setting up for concrete pumping operations the following needs to addressed:

- the plant is set up, operated and maintained as per the manufacturers' instructions;
- the pumping unit is set up and managed so that it can operate safely if in the vicinity of overhead electric lines or other hazardous items;
- the plant is set up on firm and level ground with timber or pads under outrigger feet;
- the outriggers feet are set up a safe distance from excavations and soft ground;
- outriggers are always fully extended unless the boom manufacturer states short legging is permitted and you have followed the manufacturers' instructions; and
- correct PPE is worn.

The person managing or controlling the concrete pump ensures the pump is:



- provided with adequate guarding and interlocks to eliminate, so far as is reasonably practicable, the risk of injury from entanglement, crushing or amputation as a result of contact with any moving parts in the concrete delivery hopper;
- provided with concrete delivery pipes and connecting clamps that are able to withstand the pressures applied by the concrete pumping operation without failing;
- subjected to regular thickness inspection; and
- operated in a manner that ensures that the risks to the operator of the unit and other persons at or near the workplace that arise from systems of work and the environment in which the unit is used are eliminated so far as is reasonably practicable, or if it is not reasonably practicable to eliminate the risks, minimised so far as is reasonably practicable?

The person managing or controlling the concrete placement boom ensures that it:

- is installed and operated in a manner that will prevent overturning or collapse of the concrete placement boom;
- operated in a manner that prevents rapid or uncontrolled movement of concrete delivery pipes and hoses that could result in injury;
- receives an annual safety inspection by a competent person; and
- receives a major inspection by a competent person at intervals not exceeding 6 years. The major inspection is to include items of plan inspected during the annual inspection and all other critical safety components of the placement boom and its supporting structure?

## 12.10. Traffic Management Plans (TMP)

Working in the vicinity of road traffic is High Risk Construction Work and will be addressed in the Traffic Management and Safety Plan

- [Traffic Management Procedure AU\\_00009289](#)

### 12.10.1. Onsite – Traffic Management

#### **Risk Assessment**

A SWMS shall be developed for onsite traffic management and any risks identified shall be addressed by either SWMS or a Traffic Management plan.

#### **Site Access & Parking**

Safe access onto the site for pedestrians and visitors shall be established. Car parking areas shall be designated and signed. All vehicles in the car park shall reverse park.

#### **Vehicles and Mobile Plant on Site**

Site Vehicles and mobile plant on site shall travel at the nominated speed limit at all times. Only licensed and authorised persons are permitted to operate site vehicles and mobile plant on site.

Site Vehicles that will be operating in the construction area shall be fitted with the following items:

- Roof mounted flashing light
- UHF radio

- Fire extinguisher
- First aid kit
- Reverse warning alarms.

All site vehicles and mobile plant shall communicate with each other and receive positive acknowledgement by the use of UHF radio when entering and leaving the worksite, when interacting or driving near other plant or vehicles or when passing slow moving plant.

#### **Onsite Vehicle Movement Plan – [for fixed workplaces]**

A Vehicle Movement Plan shall be developed for the site. This plan shall be a site plan that details visitor, staff and truck access, parking arrangements on site, pedestrian access to site and walkways and pedestrian crossings around the site where applicable. The map will be prominently displayed on the site notice board and all employees, subcontractors and visitors intending to enter the site will be made aware of it.

#### 12.11. Electrical Safety

All activities requiring works with electrical supplies or equipment shall be in accordance with the Electrical Safety Procedure.

- [Electrical Safety Procedure AU\\_00001243](#)

#### 12.12. Isolation

All activities requiring Isolation, tagging and lock out, shall be in accordance with the relevant Isolation Procedure.

Where the Isolation Procedure makes reference to plant, it shall be read to indicate fixed plant. When servicing Mobile Plant, a full isolation plan is not required, rather the lock out tag process as described in the Isolation Procedure shall be adopted.

- [Isolation Procedure AU\\_00007670](#)

#### 12.13. Hot Work

Any Hot works shall be performed in accordance with the Fulton Hogan Hot Work Procedure.

- [Hot Work Procedure AU\\_00002276](#)

#### 12.14. Fall Prevention

Where there is a potential to fall from heights a SWMS shall be developed in line with the requirements of the Fall Prevention Procedure.

- [Fall Prevention Procedure AU\\_00003325](#)

#### 12.15. Ladders

All ladders used on site shall comply with AS 1892. The use of step ladders is to be strongly discouraged. All ladders shall be inspected for defective rungs, warping, damaged feet, cracking or damage by the H&S representative, Supervisor / Foreperson, Workplace Safety Coordinator or the Project Engineer.

Ladders must be placed on firm, level ground and secured, secured at the top, be placed at the correct angle (1:4) and shall extend one meter above the landing. As part of the sites daily inspection routine ladders shall be checked for compliance.

- [Fall Prevention Procedure – Attachment Use of Ladders AU\\_00010847](#)

#### 12.16. Parawebbing/flagging

Where Para webbing or flagging is used (soft barrier) to warn of an excavation or drop off it is to be located 2 meters back from the edge. This is to allow for a person to fall and not go over the edge.

All dams, ponds, basins, excavations or hazards are to be para Webb off to prevent workers or the public being exposed to the hazard. For night time para-webbing of hazards reflective markers or flashers must be applied according to the relevant authority.

#### 12.17. Hazardous Chemicals and Dangerous Goods

The Dangerous Goods and Hazardous Substances Procedure details Fulton Hogan's requirements for chemicals management.

- [Dangerous Goods & Hazardous Substances Procedure AU\\_00003322](#)

#### 12.18. Asbestos

Where it is suspected that asbestos may be located on site the material is to be tested by an appropriately NATA certified lab. Where asbestos is required to be removed an appropriately qualified asbestos remover will be engaged. The Fulton Hogan Asbestos Procedure shall be complied with.

- [Asbestos Procedure AU\\_00003194](#)

#### 12.19. Demolition

All demolition work shall be performed in accordance with the relevant legislation..

#### 12.20. Manual Handling

All manual handling activities shall be managed as per the Fulton Hogan Manual Handling Procedure.

- [Manual Handling Procedure AU\\_00004222](#)

#### 12.21. Confined Space and Restricted Access

Any work in a Confined Space shall be as per the Fulton Hogan Confined Space Procedure.

- [Confined Space Procedure AU\\_00002268](#)

#### 12.22. Fit for Work - Fatigue Management

Fulton Hogan's Fatigue Management Controls are detailed in the Fulton Hogan Fit for Work – Fatigue Management Procedure.

- [Fit for Work – Fatigue Management Procedure AU\\_00003242](#)

#### 12.23. Fit for Work - Alcohol and Drugs

All Fulton Hogan employees and subcontractors are required to present for work in a manner as to be fit for work. The site will be no tolerance site.

- [Fit for Work – Alcohol and Drugs AU\\_00003196](#)

#### 12.24. UV, Sun Protection and Heat

Exposure to UV and its effects will be managed by appropriate PPE, the provision of sunscreen and drinking water.

#### 12.25. Noise Management

The management of noise will be in accordance with the Construction Environmental Management Plan

#### 12.26. Dust Management

The management of dust will be in accordance with the Construction Environmental Management Plan

#### 12.27. Use of Lasers

Where class 2, 3A or 3B lasers are to be used operators must have appropriate training. Where lasers of Class 3 and above are used the operators shall have attended the required level of training as determined by the relevant legislation. A register of lasers on the Plant and equipment register shall be maintained along with appropriate signage.

#### 12.28. Personal Protective Equipment

Personal Protective Equipment shall be as per the Fulton Hogan Personal Protective Equipment Procedure.

Subcontractors are responsible for providing all of their employees with the appropriate protective equipment deemed necessary as per the site requirements. The minimum PPE requirements are detailed in the induction. A PPE issue register is to be maintained in the Supervisor / Forepersons office.

- [Personal Protective Equipment Procedure AU\\_00002278](#)
- [PPE Issue Register AU\\_000002275](#)

#### 12.29. Working Near Underground or Overhead Services

All work near overhead or underground services shall comply with the Working Near to Underground or Overhead Services Procedure.

- [Working Near Underground or Overhead Services Procedure AU\\_00002375](#)

## Appendix A – Workplace Risk Assessment (WRA)

**Appendix T - Appendix 43 to Exhibit A to the Upgrade Project Deed**

**Appendix 43 Initial Traffic Management and Safety Plan**



## Initial Traffic Management and Safety Plan

PROJECT: M2 LANE COVE ROAD ON RAMP PROJECT  
CONTRACT No.: TBA

CONTROLLED COPY NO: [e-copy](#)

### DISTRIBUTION LIST OF CONTROLLED COPIES

Copy No.	Issued to	
1	Fulton Hogan Construction	Project Manager
2	Hills Motorway - Client	Client's Representative
3	Roads & Maritime Services of NSW	RMS's Representative
4	SKM – Independent Verifier	Independent Verifier's Representative

Originated by:  
Salar Aga – Quality Manager (Eastern Construction)

Reviewed and authorised by:  
Arthur Vasilaras – Project Manager

\_\_\_\_\_  
(Signature/Date)

\_\_\_\_\_  
(Signature/Date)

Fulton Hogan Construction Pty Ltd (ABN 46 010 240 758), L3, 61 Dunning Avenue, Rosebery, NSW 2018

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### Acronyms

CEMP	Construction Environmental Management Plan
HML	Hills Motorway Limited
ITMSP	Initial Traffic Management & Safety Plan
PMP	Project Management Plan
QMP	Quality Management Plan
RASS	Radar Activated Speed Signs
RMS	Roads and Maritime Services
ROL	Road Occupancy Licence
SWTC	Scope of Works and Technical Criteria
SZA	Speed Zone Authorisation
TCP	Traffic Control Plan
TCSM	Traffic Control Site Manager
TCWS	Traffic Control at Works Sites Manual
TMC	Transport Management Centre
TMP	Traffic Management Plan
TMSP	Traffic Management and Safety Plan
VMP	Vehicle Management Plan
VMS	Variable Message Signs
WHMSP	Workplace Health and Safety Management Plan

## 1. Project Description

The M2 Lane Cove On Ramp Project is a Design and Construct (D&C) Project, which involves designing and constructing of a new eastbound on-ramp from Lane Cove Road to the M2 Motorway at Macquarie Park with motorway widening between the new ramp and the existing Delhi Road eastbound off-ramp.

Key features of the project are:

- A new on-ramp from the southbound carriageway of Lane Cove Road to the eastbound carriageway of the M2 Motorway.
- Widening of the eastbound carriageway of the M2 Motorway by one additional lane for around 600 metres from the new on-ramp extending to the beginning of the existing eastbound Delhi Road off-ramp.
- Widening of the Wicks Road Bridge to facilitate the additional eastbound lane.
- A new toll point at the on-ramp.
- Additional traffic management systems (including an over-height detection system using existing Variable Message Signage and Closed Circuit Television (CCTV) coverage of the new on-ramp and alterations to the Intelligent Transport Systems.
- Finishing works including line marking, lighting, signposting, site clean-up, restoration, landscaping and revegetation.

## 2. Introduction

This Initial Traffic Management and Safety Plan (ITMSP) is the master document to a set of site or zone specific Traffic Management Plans (and their associated Traffic Control Plans and Temporary Works Drawings). Together they deal with the safe and effective management of traffic during the design and construction phase of the Project.

This ITMSP interfaces with the other associated plans, which together describe the proposed overall project management system for the Project.

Attachments/Appendices to this plan are revised independently of this plan.

## 3. Purpose

The intended purpose of the ITMSP is to describe how Fulton Hogan will implement the work in accordance with the M2 Motorway Lane Cove Road On Ramp Project Deed.

## 4. Scope

This Plan applies to all parts of the construction of the Works. It does not apply to the maintenance of the road after opening to traffic.

The scope includes:

- Provision must be made (including through the selection, provision and adoption of appropriate work practices, equipment, infrastructure and operating procedures) for the safe movement of all road users, including pedestrians and cyclists, under all conditions and at all times during construction work.

- The protection of workers from passing traffic.
- The provision of traffic controllers.
- The installation of temporary signs, road markings, lighting and safety barriers.
- Maintaining similar traffic control measures implemented throughout the current M2 Upgrade.

It also covers maintenance of the existing road corridor, including the existing road and road shoulder that may be used for the temporary diversion of traffic, over the duration of the works.

## 5. Requirement Matrix

The requirement matrix that is accompanied with this plan is developed to assist users and reviewers to identify where various elements of HML and RMS requirements are addressed in this plan in particular to Appendix 6, Appendix 14, Appendix 18 and Appendix 23 of SWTC.

## 6. Strategy for the Project

The roads affected by the construction of the Project vary greatly from the heavily trafficked Lane Cove Road to infrequently used local roads. However, the requirement remains the same as impacts in both cases must be kept to a minimum.

Therefore Fulton Hogan will:

- Schedule the works to exclude lane closures during Public Holiday Weekends and School Holidays and minimise closures during daylight hours.
- Schedule the work to minimise the lane, road occupancy and shoulder closures for tie-ins to existing pavements.

## 7. Objectives and Targets

The project objectives have been developed to align with those of the RMS as documented, including but not limited to, the Project Deed and associated SWTC.

In summary, the key objectives to be adopted by the project team with respect to the TMSP are to:

- Ensure the safety of employees, contractors, the general public, RMS personnel, pedestrians, cyclists and traffic.
- Keep traffic delays to a minimum.
- Maintain satisfactory property access.
- Minimise disruption to businesses.
- When required, obtain approvals and licenses from relevant Authority for Local Roads.
- All Traffic Management must comply with the Environmental Documents and RMS Specification DCM G10, traffic management practice set out in relevant Australian Standards and the RMS publication titled Traffic Control at Worksites.
- Design temporary roadways and detours in accordance with RMS Road Design Guide, Traffic Control at Worksites Manual and RMS specification DCM G10.

- Define Traffic and Safety management responsibilities of all construction and maintenance staff.
- Carry out road safety audits of all temporary traffic management proposed.
- Meet the requirements of project specific Specification RMS DCM G10 Traffic Management, and the RMS Traffic Control at Works Sites Manual (TCWS).
- Revised Traffic Management and Safety Plan must be submitted to RMS's Representative, and the Independent Verifier 30 days prior to work that effects traffic movement commencing.
- Contain, as minimum, the contents specified for Traffic Management and Safety Plans in the Scope of Works and Technical Criteria.

The project team is to ensure that the work site provides for the efficient flow of traffic. If the works are not in operation for any significant length of time and are causing disruption to traffic flow, then all restrictions on the carriageway must be temporarily removed to allow the free flow of traffic. This does not include road shoulder closures.

Traffic Management Plans (TMPs) must be submitted to RMS for approval at least ten (10) Business Days before any proposed change to traffic flow, vehicle and pedestrian/cycle movements and arrangements for control of traffic on the roads.

Progress against the nominated objectives will be continually assessed during the course of the project. The delivery of the objectives for this project is the responsibility of the Project Manager or nominee, as detailed in the Duties and Responsibilities section of this Plan.

## 8. Commitments, Policies and Standards

Fulton Hogan is committed to Health & Safety on all of its projects. The project team will carry out the works in accordance to the company's commitments, policies and standards. This requirement is briefly described under the Project Management Plan (PMP).

In addition, Fulton Hogan warrants that it will provide people, materials, resources and systems to properly perform the works associated with Traffic Management.

Fulton Hogan will:

- At all times comply with the TMSP and the requirements of the SWTC and the Project Deed in respect to traffic management and safety;
- Make arrangements during construction to minimise disruption to local and through traffic and to maintain access to affected properties and land; and
- Implement all necessary traffic management methods to effectively manage traffic affected by the construction of the Project Works and the Temporary Works during construction.

## 9. Duties and Responsibilities

The project team is responsible for all construction activities, including the implementation and maintenance of Fulton Hogan's Project Traffic Management and Safety Plan for all relevant construction and maintenance works. The key project personnel and their traffic management related responsibilities are described below. The

project team must constantly monitor and review the execution of the work to ensure continued compliance with Traffic Management and Safety Plan. Duties and responsibilities are further addressed in the PMP.

### **Project Manager**

- Ensures the Project's road safety and traffic management objectives (listed under Section 7 of this Plan) are achieved.
- Ensures that all the incidents caused by site activity, and incidents on public roadways that are unrelated to the construction activity are reported to the RMS.
- Co-ordinating incidents to the RMS Incident Manager for the Region and Police.

### **Senior Project Engineer**

The Senior Project Engineer is responsible for ensuring traffic management:

- Is properly planned, organised, directed and controlled.
- Is properly resourced with people, equipment, facilities and systems.
- Meets the requirements of the contract including the Project Deed, SWTC and RMS Specifications DCM G10.
- Complies with all other legislation.
- Is achieving its objectives.

### **Superintendent**

- Co-ordinates the field resources.
- Supports the delivery of the road safety and traffic management objectives.
- Assists with the implementation of the TMSP.
- Provides direction and support to enable effective planning of temporary traffic management arrangements.
- Ensures all field team members receive the appropriate training.
- Managing all Emergency Controls as depicted in Emergency Preparedness and Response Sub-Plan.

### **Traffic Engineer**

- The nominated Traffic Engineer shown in the Organisation Chart is the Traffic Control Site Manager (TCSM) who will be required to have minimum, in RMS's Select/Modify Traffic Control Plan course (Red Card) and will be required to have the delegated authority from, and responsibility to, the Project Manager for continuously monitoring the preparation, implementation and operation of all road occupancies to ensure that they are compliant with the ROLs, TCPs, VMPs, etc.
- The Traffic Engineer will be contactable at all times during the construction phase of the works to receive and answer traffic/incident related inquiries from RMS and the Police. Site Emergency contact list shall be located in the Fulton Hogan Incident and Emergency Response Handbook that will be displayed in the site office and the crib room.
- The Traffic Engineer will have the authority to stop work on any activity if it is considered to be necessary to prevent traffic incidents, or to comply with the directions of RMS or Police.
- The Traffic Engineer will perform inspections of Traffic Control.

**Engineer(s) Responsible for the Work Activity**

- Assists in the delivery of the road safety and traffic management objectives outlined in the TMSP.
- Plans all work activities and identify the required traffic management arrangements to facilitate the works.
- Liaises with the Traffic Crews in the planning and implementation of the required traffic management arrangements.
- Conducts regular inspections (including pre-starts) of traffic controls and VMPs and where necessary instructs the rectification of deficiencies.

**Foreman**

- Ensure compliance to the approved TCP(s).
- Issues the required TCP(s) and where relevant road occupancy approvals and speed zone authorizations to the traffic control crew / or subcontractor.
- Conducts pre-start inspections and regular night / weekly inspections of traffic control arrangements, and ensure all deficiencies are rectified.
- Assist with the implementation of mitigation measures to address unsafe road conditions, and unusual traffic congestion.

**Functional Personnel and Responsibilities**

- Functional personnel provide support for all construction activities and their traffic management related responsibilities are described above.

**Community Liaison Advisor**

- Liaises with the community for all aspects of community and stakeholder issues.
- Conducts consultation with stakeholders for traffic planning, and provides an on-going liaison role.
- Prepares and distributes changed traffic condition information to the community.

## 10. Time Management

Fulton Hogan aims to meet its time related obligations in accordance with DCM G10 Specification.

## 11. Potential Environmental Impacts

The potential environmental impact (e.g. noise, dust etc.) that may result from traffic management activities of the Project will be documented by the Environmental Manager.

For more details, refer to the Construction Environmental Management Plan (CEMP) that identifies the potential environment aspects and impacts, and details the various measures to be applied by the project team to mitigate those impacts.

## 12. Traffic Staging Plans

Traffic Staging Drawings illustrate how the traffic will pass safely through or around the Construction Site during the various construction stages. For each stage the plans show the following:-

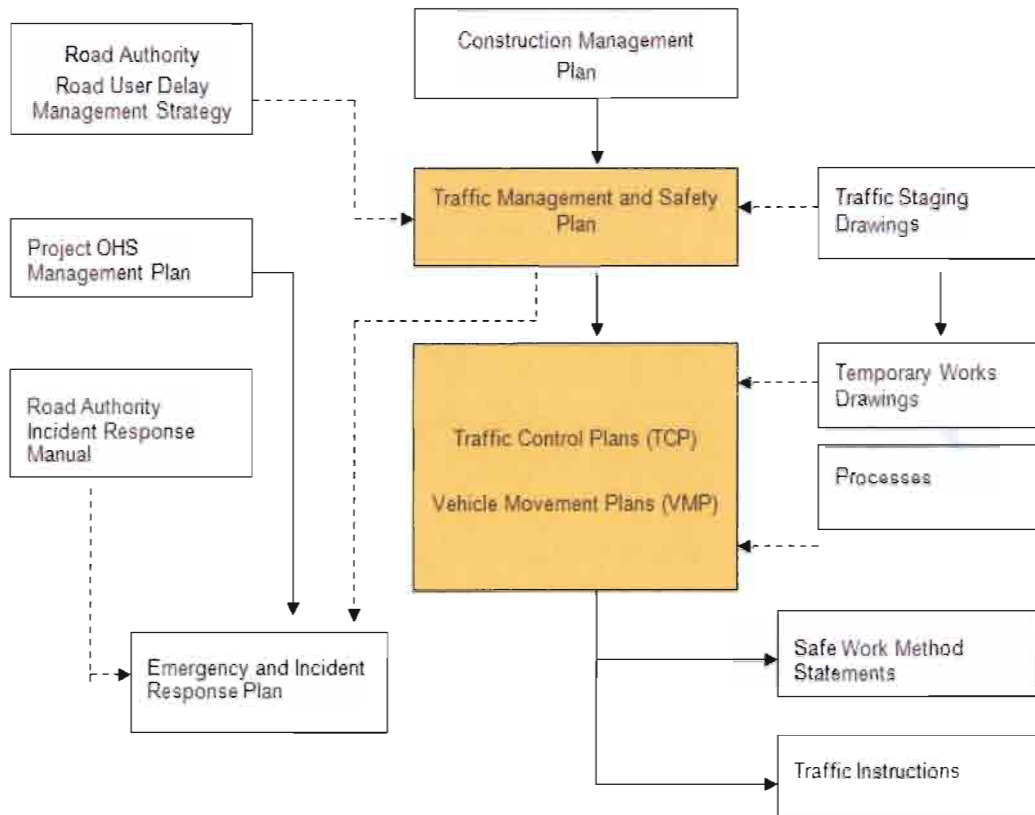
- Lane configurations on existing and new (temporary and permanent) pavements, indicating any departures from the existing lanes.
- Working areas and pedestrian and cyclist paths.
- Access to residential properties, local business and community facilities.
- Intersection layout sequencing.
- Identify the need for temporary works.
- Specify any particular traffic management measures / controls.
- Pavement markings, available travel lanes per direction.
- Drainage system, both temporary and permanent.
- Utilities that impact on the project works.
- If any temporary lane or road closures Fulton Hogan must comply with Appendix 18, Table 18.1 & 18.2 and Road Occupancy requirements.

The staging drawings are based on the design drawings, and the final versions will be prepared in association with the construction program.

Traffic intersections will not be impacted, therefore construction staging will not be required. Any changes to traffic movement will be covered within the TCPs. Nominated lane closure periods for both Local Roads and the M2 Motorway, along with the required approvals from Ryde City Council, will be covered within the TCPs. Lane closures will be carried out outside the peak traffic period, i.e. after 10am, ensuring compliance with M2 Motorway requirements.

The Traffic Engineer will prepare staging plans in collaboration with site team for each traffic stage of the Project. These drawings will be gradually submitted and appended to this Plan.

The following figure describes the relationship between the various traffic management documents.



### 13. Traffic Control Plans

Fulton Hogan will develop Traffic Management Plans for associated work planning to minimise delays that will inconvenience motorists and other road users or interfere with traffic during heavy traffic flows.

Fulton Hogan will implement approved Traffic Control measures for any works which disrupt free traffic movement in road related areas such as highway, local roads, car parks, driveways, pedestrian accesses/ facilities etc.

Prior to undertaking any activity that alters the alignment or configuration of traffic lanes or shoulder (other than a permitted lane closer in accordance with Appendix 18), Fulton Hogan must prepare a Traffic Management Plan that addresses the movement of traffic affected by the Fulton Hogan's construction works.

These measures will include Traffic Control Plans (TCP) and Vehicle Movement Plans (VMP) as required and will encompass vehicle movement and pedestrian movement for both construction resources and the general public. Any property accesses affected by the construction activities will also be identified on the TCPs.

Traffic Management Plans for any activity associated with the Works, including the use of temporary warning signs, will be required to be developed and complied with on the basis of the following documents listed below:



1. RMS Specification DCM G10;
2. RMS Traffic Control at Worksites Manual;
3. AS 1742.3 - 2009 "Manual of Uniform Traffic Control Devices Part 3: Traffic Control for Works on Roads"; and
4. Traffic Management and Safety Plan.

TMPs must be submitted to RMS for approval at least ten (10) Business Days before any proposed change to traffic flow, vehicle and pedestrian/ cycle movements and arrangements for control of traffic on the roads.

For all planned and scheduled maintenance and other works under the contract, Fulton Hogan will prepare Traffic Control Plans and submit in accordance with Clause 1.4 of the DCM G10 Specification, Appendix 6, Appendix 18 and Appendix 23 of the SWTC.

Details of proposed changes to traffic flow and arrangements for traffic control of traffic on arterial roads must be to the satisfaction of RMS's Representative and must be submitted in writing at least fourteen (14) days before the proposed change. Appropriate advertising of the proposed change must be undertaken by Fulton Hogan.

Following acceptance by RMS, the TMP can be activated by application for an ROL or Work Permit, depending on the location of the works. ROLs will be required along Lane Cove Road and Wicks Road, and M2 will require a Work Permit approved by HML.

#### 14. Road Occupancy Licences

A number of diversions/staging will require the shoulders and lanes on either the existing, temporary or new pavements of the M2 Motorway and associated local roads to be closed in order to construct the works.

Where any work by the Project will or is likely to obstruct or have the effect of restricting, closing, interfering with or obstructing the free flow of traffic on any lane or shoulder of the existing Motorway or local road, the project team will be required to lodge with RMS or the local council (in the case of local road closures and occupancies):

- An application in the form set out in Appendix 23 of the SWTC for a Road Occupancy Licence, providing all relevant details of the proposed Work; and
- A TCP as required by RMS's Representative.

Traffic Engineer will obtain from RMS and other relevant Authorities for all road occupancies, detours and closures on local roads. RMS or relevant Authorities may elect to prohibit road occupancies, road closures or lane closures due to special events or other high traffic demands.

A Road Occupancy Licence must be obtained from RMS, in accordance with Appendix 23 of the SWTC, for all road occupancies, detours and closures on the existing Local Roads.

Project Team must ensure that sufficient roadway capacity is provided to accommodate the expected traffic volumes on Local Roads.

Fulton Hogan must obtain a Work Permit from The Hills Motorway Group for the all road occupancies on the M2 Motorway. The Hills Motorway must consult with RMS prior to issue of the Work Permit.

The application to the RMS or Council will be required to include:

- Submission of a completed road occupancy application form;
- Brief details of the works to be conducted;
- Any relevant design drawings of the works;
- Program of the works;
- Copies of TCP's;
- If applicable, details of speed limit authorisation submission; and
- Contact details of a construction site representative.

ROL Applications are submitted to RMS for approval.

Work will not begin until the RMS has approved and issued the ROL/licence.

A copy of any ROL issued pursuant to the provisions of the Project Deed and including all terms, conditions and requirements will be available:

- At the location of the relevant road occupancy; and
- At all times when construction activities associated with the ROL are taking place.

## 15. Site Security, Site Access and Signage

Site security, site access and signage will be managed through the implementation of this plan, Workplace Health & Safety Management Plan (WHSMP) and the VMPs covering the area in and around the work-site access points.

Main access will be via Wicks Road onto the M2 Motorway most of the time. Deliveries will be from the M2 Motorway. As works progress access will also be via Lane Cove Road.

The VMPs will also provide details of the layout within the worksites and the site compound area including:

- The movement of construction and other vehicles within the work site and site compound area and the associated signage including off-road plant movements;
- Movement of vehicles on adjacent publically accessible roads e-g haulage of spoil from and excavation site, across the highway to a stockpile site;
- The location of and access to parking areas and the associated signage;
- Visitor parking areas;
- Pedestrian routes;
- Access paths to crib sheds, offices and the like;
- All associated signage; and
- Security point locations including boom-gates if required.

The location of rumble grids, wheel washes and other environmental protection measures shall be included in the VMPs and will be as determined by the requirements of the CEMP. VMPs will be developed in consultation with suppliers.

## 16. Pedestrian Management and Provisions

### 16.1. Identifying Pedestrian Needs

When planning construction activities, the project team will be required to give consideration to the:

- Number of pedestrians;
- Type of pedestrian activity: whether office, retail, residential or recreational;
- Origin and destination points of the pedestrians, and their desired travel path;
- Needs of vulnerable pedestrians, such as young children, the elderly, vision impaired, disabled people, people with prams and trolleys;
- Proximity of pedestrian generation developments, such as schools, shopping centres, railway stations, bus terminals; and
- Restriction of pedestrians onto Motorways.

The AUSTROADS Guide to Road Design – Part 6A Pedestrian and cyclist paths provides guidance on the needs of pedestrians and the project teams will be required to adhere to these guidelines.

To provide a safe environment for pedestrians, the Traffic Engineer will clearly define the boundaries of all work areas, and provide defined walking paths, where required.

Fencing will be installed to restrict physical access to hazardous areas and for site security, which will be appropriately sign posted. Various types of temporary and semi-permanent fencing may be installed, including plastic mesh; water filled plastic delineators; weldmesh pool fencing; chain wire mesh and so on. All physical barriers must be maintained during the project and appropriately secured to prevent injury to the public.

### 16.2. Providing Temporary Footpaths

Not applicable in this instance. Temporary Signage to be implemented directing pedestrian to alternate routes.

## 17. Bicycle Management and Provisions

Where applicable planning construction activities, the project team will give consideration to the:

- Number of cyclists;
- Type of cycling activity: school children, recreational, commuter, utility, touring or sport training;
- Origin and destination points of the cyclists, and the connectivity of their routes;
- Needs of vulnerable cyclists, such as young children under 12 years;

- Proximity of cyclist generating developments, such as schools, universities, public transport terminals, shopping precincts etc.;
- Travel speed of cyclists; and
- Redirection of cyclists to alternative and separate routes.

The AUSTRROADS Guide to Road Design – Part 6A Pedestrian and cyclist paths and NSW Bicycle Guidelines provides guidance on the needs of cyclists and the project team is required to adhere to these guidelines.

## 18. Managing Construction Vehicular Movements

The effective management of construction vehicle movements on site and throughout the road network is critical to the success of all projects. The project team will plan all construction vehicle movements with the aim to minimise the risk to other road users and keep the traffic generated by the project to minimum.

The project team will monitor the use of local roads by construction heavy vehicle traffic in consultation with the local Council, TMC-SR to develop measures for minimising and/or restricting use of local roads by heavy vehicle traffic as far as reasonable and practicable.

The types of construction vehicle movements may include:

- Deliveries of materials, supplies, plant or equipment to site;
- Transportation of over dimension loads;
- Haulage of materials on and off site associated with earthworks operations;
- Deliveries of concrete and AC bitumen from batching plants to pavers; and
- Regular trips by construction personnel in work trucks and utility vehicles.

The types of vehicles used on projects will vary depending on the type of infrastructure being constructed. Off road plant/vehicles may include: scrapers, dump trucks and all wheel drivers tippers. Whereas, the on road registered vehicles may include: 4wd utilities; single unit trucks with or without dog trailers; semi-trailers; B-Doubles; and over dimension floats/platforms etc.

## 19. Temporary Roadways and Detours

If temporary roadways and detours, or adjustments to existing lane configuration and geometry, are required as part of the traffic staging, they will be designed in accordance with the relevant design standards and in accordance to Clause 2.7 of project specific RMS Specification DCM G10 and Traffic Control at Worksites Manual.

Traffic switches will be required to be carried out during the staged delivery of the M2 Lane Cove On Ramp and local road upgrade components of the project. Between two to three traffic switches will be required in any one area of the project with varying impacts on the through traffic, local traffic, public transport, school buses, bicyclists and pedestrians.

The Project team will be required to develop and implement a procedure for managing traffic switches in compliance with the Project Deed and the local authority requirements (i.e. Local Council).

## 20. Opening to Traffic Upon Completion

All relevant permanent sign posting, pavement markings, safety barriers and traffic signals required under the Project Deed are required to be in place prior to opening of any part of the Project Works to traffic.

All temporary traffic control devices no longer required for the safety of traffic, when any part of the Project Works is opened to traffic, are also required to be removed or covered.

At least 10 days written notice is to be given to the RMS of the date of opening any part of the Works to traffic.

Consultation for opening traffic is to be carried out with RMS and the Police.

## 21. Traffic Controllers

If undertaking traffic control, the traffic controllers are required to be registered under the RMS's Registration Scheme Category G "Traffic Control".

All traffic controllers used by Fulton Hogan and its subcontractors will be required to have completed RMS accredited Traffic Controller training as follows:

Traffic Control Roles	RMS Traffic Control Course
Using stop/slow bat	Blue Card
Set up traffic control	Yellow Card
Select standard TCP from TCWS, with minor modifications	Red Card
New TCP Inspect setting out of TCP at work sites	Orange Card

A list of their names, tickets and ticket expiry dates will be registered in the project inductions.

## 22. Traffic Control Devices

### 22.1. Safety Barriers

Where identified in TCPs, safety barriers are required to be from the list of safety barrier products accepted by the RMS. This list can be obtained from RMS website at: [http://www.rta.nsw.gov.au/doingbusinesswithus/designdocuments/safety\\_barriers.html](http://www.rta.nsw.gov.au/doingbusinesswithus/designdocuments/safety_barriers.html)

The project team is also required to provide the manufacture's recommended buffer zones (Exclusion zones) on approach side of the water filler barriers and behind barriers, as required, and construction work or pedestrian movement is not to be permitted within the deflection or impact zone of safety barriers.

## 22.2. Pavement Marking and Signs

All pavement marking, retro-reflective raised pavement markers and signposting for use in temporary works are required to be appropriate to the climate, lighting and traffic conditions reasonably expected along the project works, all areas accessible by the public, which are affected by the Project Works.

Unless otherwise specified, waterborne paint is to be used for pavement markings of temporary works.

The method for removal of redundant pavement markings from wearing surfaces, other than the final wearing course, is required to comply with the requirements of TCWS. Removal of redundant line marking within traffic lanes by covering with paint is not to be acceptable.

Temporary speed zoning signs are to be supplied and erected by the project team at the locations indicated in relevant TCP.

The signs are to be kept covered when the speed zone is not in use. Temporary Speed Zoning signs are to be removed when they are no longer in force.

## 22.3. Portable Variable Message Signs

Variable Message Signs (VMS) are to be placed in strategic locations as agreed with RMS to keep road users informed of changes to road conditions and if possible delays as a result of construction work.

## 23. Signage

### 23.1. Information, Distance Information and Advance Warning Signage

This issue requires the project team to address the location of the existing:

- Information Signs
- Distance Information Signs
- Advance Warning Signs

The issue of information signage, distance information and advance warning signage will be managed through the implementation of the Traffic Staging Plans and their associated TCP/VMPs.

### 23.2. Regulatory Signage

Where a TCP requires a change in the posted speed limit, a formal direction from RMS will be required (including restoring the existing speed limit on completion). This will be

requested as part of the Speed Zone Authorisation (SZA) application submitted to the RMS, which is an extension to ROL.

This issue requires the project team to manage the speed of traffic approaching and passing through a work site and address the varying of speed limit signage through construction speed limit signs.

Existing speed limits can be varied through the authorisation of a Speed Zone Authorisation (SZA) by RMS.

The issue of speed limit signage will be managed through the implementation of the Traffic Staging Plans and their associated TCPs.

### 23.3. Directional Signage

Changes to directional signage will be required to be shown on each TCP.

## 24. Traffic Delays and Inconvenience Management

At all times, Fulton Hogan are required to provide safe and convenient passage for vehicles, pedestrians and stock to and from Local Roads and existing access must not be undertaken without providing adequate alternative provisions to the prior satisfactions of RMS's Representative.

For the duration of the construction works Fulton Hogan must manage the road networks and the traffic systems effected by Fulton Hogan's Work, within the overall constrains, control and responsibilities that RMS has for the operational management of the Sydney road network and traffic systems.

Fulton Hogan must develop and implement traffic management strategies to minimise and mitigate traffic impacts caused by Fulton Hogan's Works, to optimise road safety and to comply with the requirements of Appendix 18 of the SWTC.

The M2 Motorway must be available for use by all vehicular traffic in accordance with the Traffic Management and Safety Plan at all times during Fulton Hogan's construction Work.

The Project Team required monitoring, updating and reporting to RMS on the impact of Fulton Hogan's work on the capacity and performance of the M2 Motorway and the surrounding Local Roads.

Fulton Hogan acknowledges that maintaining the Level of Service (LOS) of the road network and minimising the delays experienced by road users during the construction of any project is important. The various strategies and measures that can be applied to minimise road user delays can be done by applying the following strategies:

### Delay Minimisation Strategies

The delay minimisation strategies to be applied by the Project Team may include:

- Minimising the impacts of each work area;
- Maximising the operating performance of the individual routes;

- Aim to maintain access; and
- Coordinating works at each work area to ensure road users do not encounter several delays in quick succession.

### Implementing Measures

Measures to minimise road user delays for the development of any major infrastructure project starts during the concept design phase and continues through to the opening and operation phase.

Fulton Hogan acknowledges there are various measures that can be applied to minimise road user delays, which are generally divided in four categories:

- Design;
- Isolation of work areas;
- Work methods; and
- Planning of lane closure / road occupancies.

Where practical, the Traffic Engineer will be required to apply the following measures:

- Isolate work areas from traffic flows (e.g. using alternative routes, temporary sidetracks, widenings and temporary safety barriers);
- Develop alternative work methods to minimise impacts (e.g. utilise more efficient plant / equipment, apply different design solution, enclosed work platforms, time of day applications);
- Plan all lane closures / road occupancies with the aim to: minimise the actual work area, limit obstructions and restrictions, maximise the roads capacity, and avoid peak traffic flow periods;
- Analyse traffic volume data to: establish the capacity of the road; assess the potential impact on traffic flows, and identify the best time to apply temporary traffic arrangements, so as to minimise the inconvenience to road users; and
- Provide road users with changed traffic condition information to enable them to plan their journey and avoid the roadwork.

## 25. Community Involvement

In addition to the requirements of the Community Involvement Plan (CIP), the project team will be required to meet the reasonable needs and desires of the community for information on changed traffic conditions including property access provisions, bicyclist impacts, pedestrian impacts and heavy haulage transport impacts. Please refer to the CIP for further details.

Communication must be undertaken by Fulton Hogan to advise stakeholders and the local community and road users of proposed changes to traffic flow, vehicle and pedestrian/cycle movements and arrangements for the control of traffic on roads.

## 26. Provisions for Special Events

Reporting and logging of any special events will be communicated with RMS's Transport and Co-ordination Centre.



## 27. Emergency and Incident Response

Fulton Hogan will provide traffic control by qualified traffic controllers for emergencies such as crashes and spillages along the work corridor. Traffic management for these events will not require a hold point release to be submitted to the RMS.

Despite any other provision of the Project Deed, where the New South Wales Police Force, Emergency Services, RMS and Traffic Management Centre (TMC) are controlling an incident, the project team:

- Shall comply with any instruction or direction by the New South Wales Police Force, Emergency Services, RMS and Traffic Management Centre (TMC) in relation to any proposed closure to a lane or shoulder;
- Shall not restrict, close, interfere with or obstruct the free flow of traffic on any lane or shoulder of the existing Highway, the works or a Local Road contrary to the instructions of the New South Wales Police Force, Emergency Services, RMS and Traffic Management Centre (TMC); and
- If permitted to restrict, close, interfere with or obstruct the free flow of traffic on any lane or shoulder of the existing Highway, the works or a Local Road, shall act in accordance with any instructions of the New South Wales Police Force, Emergency Services, RMS and Traffic Management Centre (TMC) including to suspend any of the contractor's work and to re-open the lane or shoulder. Except to the extent that compliance with any instructions of the New South Wales Police Force, Emergency Services, RMS and Traffic Management Centre (TMC) makes it impossible to do otherwise, this clause shall not relieve the project team from its obligations under this Project Deed.

The types of emergencies / unplanned incidents that may occur include, but are not limited to:

- Motor vehicle crashes
- Bush fires
- Environmental spills
- Terrorist attacks
- Bomb threats
- Construction type incidents
- Structural catastrophic failures
- Inclement weather conditions
- Flooding
- Anti-social behaviour

The inevitable nature of emergencies and their potentially significant social, economic and environmental consequences is acknowledged and relevant state acts and legislation have been enacted to controlling these situations.

The relevant acts identify agencies primarily responsible for controlling particular hazards/emergencies. Such agencies are detailed in the table below.

Event	Agency
Law Enforcement / Emergencies	Police
Fire	Fire Brigades / (e.g.)Rural Fire Service
Hazardous Materials	Fire Brigades
Flood	(e.g.) State Emergency Service
Storm and Tempest	(e.g.)State Emergency Service

The project team will adopt the operating procedures for managing emergencies and unplanned incidents that are addressed in the Workplace Health and Safety Management Plan (WHSMP).

In the event of a traffic accident occurring within the construction site or at other locations affected by the works, the project team is required to record the knowledge of the facts and photograph the approach to the accident site including the location of all safety devices and signs as soon as possible after the accident. A report with this information must be forwarded to RMS within 2 days of the occurrence of the accident.

When any unplanned closure of a lane or a restriction in the flow of traffic occurs on the M2 Motorway, Fulton Hogan must immediately advise RMS's Representative and the relevant Authorities of the nature of the closures or restriction and of the schedule for reopening of the lanes. Fulton Hogan must take all required measures to open the lane as quickly as possible.

In addition, the project team will use an appropriate standard plan from TCWS, adjusting it as needed to suit the site conditions.

Refer to the Workplace Health and Safety Management Plan for further details regarding Incident, Emergency Preparedness and Response.

## 28. 24 Hour Emergency Contacts and Public Complaints

The 24 Hour Emergency Contact List is located within the WHSMP under Emergency Preparedness and Response.

The 24 Hour Emergency Contact List along with the Variable Message Sign (VMS) supplier contact details are to be provided to the TMC, so that the RMS Transport Management Centre can arrange for message displays to be changed in the event of a traffic emergency.

The RMS 1800 hotline number will be used for capturing complaints; this is further addressed under Community Involvement Plan (CIP).

## 29. Reporting to RMS

Fulton Hogan acknowledges the importance of keeping RMS and all stakeholders regularly informed. Therefore, during the project, the project team will report to RMS, community consultative committees and other relevant stakeholders on all road safety and traffic management issues that may impact on the road network.

When any unplanned closure of a lane or a restriction in the flow of traffic occurs on the existing Highway or on Local Roads, the Project is required to immediately advise RMS of the nature of the closure or restriction and of the schedule for reopening of the lanes. The project team is required to take all required measures to open the lane as quickly as possible.

### 30. Inspections

In addition to the inspections conducted by the Project Verifier (PV); a nominated member of the Project team, holding RMS's Design & Inspect Traffic Control Plans (Orange Card), is required to inspect the temporary traffic controls during the construction phase, focusing on monitoring compliance against the TCP/VMP and identifying safety hazards, to enable implementation of corrective solutions.

The Traffic Engineer, or delegate, will be required to conduct four main types of inspections on projects:

- Pre-start and pre-close down inspections of short-term traffic control;
- Weekly inspections of long-term traffic control;
- Night inspections of long-term traffic control; and
- Pre-opening inspections of minor temporary traffic switches.

These inspections will be required to be carried out in accordance with RMS TCWS Manual.

The Traffic Engineer, or delegate, will also be required to monitor traffic management and traffic controls to assess compliance with the conditions of ROLs, including:

- As-built layouts for compliance with approved traffic control plans, including sign maintenance and delineation; (Daily)
- Provisions for cyclists, pedestrians, disabled persons and buses; (Weekly)
- Timing and duration of road occupancies; (Weekly)
- Qualifications of traffic control personnel; (Weekly)
- Haulage routes off the Construction Site; (Weekly)
- Night inspections of roadworks. (Monthly and after each traffic switch)

The inspection checklists contained in Appendices C & E of TCWS Manual, or equivalent are to be utilised (or modified to suite local requirements) for recoding the inspections.

If required, the record of inspections is also to be done on the actual TCP by ticking each sign, safety barrier etc. to verify that the inspections are done.

Records of Fulton Hogan's inspections of road conditions and traffic control measures shall be maintained.

### 31. Training and Awareness

The project team involved in the works associated with TCP, VMP, ROL ...etc. will be required to be:

- Inducted in and made familiar with the TCP, VMP, ROL ...etc terms, conditions and requirements prior to the implementation of the TCP, VMP, ROL or their deployment in this element of the works associated with the TCP, VMP, ROL.
- Regularly re-trained on the TCP, VMP, ROL terms, conditions and requirements throughout the period of the road occupancy.

#### **Safe Work Method Statements (SWMS)**

Where it is considered that a work process must be carried-out in a strictly controlled manner to ensure the specified safety and quality requirements will be met, a specific Safe Work Method Statements (SWMS) will be prepared and implemented.

### 32. Reviewing this Plan

As part of satisfying it is intended purpose, Fulton Hogan will undertake on-going development, amendment and updating of the TMSP throughout the duration of the project to account for:

- Variations;
- Changes in law;
- Changes in the design and construction process;
- Those events, circumstances and requirements expressly identified in Appendix 14 of the Scope of Works and Technical Criteria (SWTC) for each project plan;
- Any other event or circumstance impacting the delivery of the Works;
- Any breach or potential breach of the warranty in the Project Deed; and
- The need to prevent the recurrence of any compromise to the safety of road users and the public

The review requirements are further addressed under the PMP.

### 33. Measurement, Analysis and Improvement

For the purpose of this Plan, the process for measurement and improvement, including corrective actions, is addressed in the Quality Management Plan (QMP).

### 34. Terms and Definitions

**Adjacent to Traffic:** Work which is not undertaken on trafficked lanes but immediately to the side of them and at locations where traffic from time to time might be expected to be found. For instance on shoulders, footpaths or medians.

**Construction Traffic:** The movement of construction plant, vehicles, delivery trucks and work site construction (pedestrian) personnel within the site construction area and within areas accessible to the public.

**Public Traffic:** The movement of pedestrians, cyclists, private vehicular transport, trucks, buses, etc within the road corridor including footpaths, tracks and other areas which are freely accessible to the public.

**Traffic:** All vehicles, persons or animals travelling on a road.

### 35. Related Standards/Legislations/Regulations/Guidelines/Codes

- RMS Traffic Control at Work Sites Manual
- RMS Specification DCM G10 – Control of Traffic
- RMS Roads Occupancy Manual
- NSW Speed Zoning Guidelines
- AS 1742 : Manual of uniform traffic devices:
  - Part 1 - general introduction and index of signs.
  - Part 2 - traffic control devices for general use.
  - Part 3 - traffic control devices for work on roads.
  - Part 4 - speed controls.
  - Part 10 - pedestrian control and protection.
  - Part 11 - parking controls.
  - Part 13 - local area traffic management.
- NSW Government - The Guide to Traffic and Transport Management for Special Events
- NSW Bicycle Guidelines

### 36. Appendices

Appendix A – Work Adjacent to Traffic Flow Chart

Appendix B – Traffic Staging Arrangements and Methodology

Appendix C – Constructing Traffic Access

Appendix D – Traffic Staging Plans

### Revision History

Rev	Revised By	Reviewed & Approved By	Date	Description/Summary of Changes
0	S. Aga	A. Vasilaras	02/11/12	Initial issue for use.
1	Yogi Yoganathan	A. Vasilaras	05/02/13	Amended to incorporate RMS Comments
2	A. Vasilaras	A. Vasilaras	07/05/13	Amended to incorporate additional RMS comments

Appendix U - Appendix 35 to Exhibit A to the Upgrade Project Deed

**Appendix 44 Initial Project Training Plan**



## Initial Project Training Plan

**PROJECT: M2 LANE COVE ROAD ON RAMP PROJECT**  
**CONTRACT No.: TBA**

**CONTROLLED COPY NO: e-copy**

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Copy No.	Issued to	
1	Fulton Hogan Construction	Project Manager
2	Client Representative – Transurban	Project Authorised Delegate
3	Independent Verifier – SKM	Independent Verifier's Director

Originated by:  
Salar Aga – Quality Manager (NSW Construction)

Reviewed and authorised by:  
Arthur Vasilaras – Project Manager

\_\_\_\_\_  
(Signature/Date)

\_\_\_\_\_  
(Signature/Date)

Fulton Hogan Construction Pty Ltd – Central (ABN 46 010 240 758), L3, 61 Dunning Avenue, Rosebery, NSW 2018

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## Acronyms

IPMP	Initial Project Management plan
IPTP	Initial Project Training Plan
ITDP	Individual Training and Development Plan
KPI	Key Performance Indicator
KRA	Key Review Area
MCOS	Minimum Conditions of Satisfaction
PD	Position Description
PDP	Performance Development Plan
PMP	Project Management Plan
PTP	Project Training Plan
QMP	Quality Management Plan
RTO	Registered Training Organisation
SWTC	Scope of Works and Technical Criteria
WTPP	Workforce Training Participation Plan

## 1. Project Description

The MN2 Lane Cove Road On Ramp Project is a Design and Construct (D&C) Project, which involves designing and constructing a new eastbound on ramp from Lane Cove Road to the M2 Motorway at Macquarie Park with motorway widening between the new ramp and the existing Delhi Road eastbound off ramp.

## 2. Introduction

The success of a project is highly dependent on the competence of the people employed. Therefore, the Project Team is committed to development and implementation of this Initial Project Training Plan (IPTP). This plan describes Fulton Hogan's approach to manage and control the training and skills development requirements on the Project.

This IPTP interfaces with the other associated Plans, which together describe the proposed overall project management system for the Project.

This IPTP is applicable to all staff, employees and subcontractors throughout the duration of the contract until Project completion and its implementation and ongoing development will be managed by the Senior Project Team.

The latest revision of this Plan is available on Fulton Hogan server. If any unsigned hard copies are printed of this document, they are valid only on the day of printing.

The revision number is included at the bottom of each page. When revisions occur, the entire document will be issued with the revision number updated accordingly.


Attachments/Appendices to this Plan are revised independently of this Plan.

## 3. Commitment and Management Responsibility

Fulton Hogan recognises that employees are our greatest asset. We are committed to the establishment of a positive culture where our people can grow and develop to reach their full potential by:

- Providing our employees with the skills to capably do their work;
- Providing meaningful career opportunities; and
- Investing in learning, training and development for the future.

These guiding commitments form the basis of our **Managing Director's Commitment to Learning and Development** statement shown below:




**Fulton Hogan recognises that employees are our greatest asset. We commit to the promotion of a positive culture where our people can grow and develop to reach their full potential by:**

- Ensuring all of our employees receive the training required to maintain work place best practice
- Identifying every employee's specific learning and development needs
- Working with every employee to develop and review a career or job related learning and development plan that successfully addresses both their individual needs and those of the company
- Providing quality training that results in measurable outcomes
- Sharing our developed expertise with the wider community wherever it is appropriate
- Systematically developing talented employees to successfully lead and support our business strategies and goals

**We are committed to:**

- Providing our employees with the skills to capably do their work
- Providing meaningful career opportunities for employees
- Investing in learning and development for the future



*N D Miller*  
N D Miller  
Managing Director, January 2010

**COMMITMENT TO LEARNING AND DEVELOPMENT**

The Fulton Hogan national and regional Human Resource professionals work in close alignment with operational managers to ensure that training is genuinely addressing actual organisational and individual needs.

The Project Director has been given overall authority for project training including the establishment, implementation, and monitoring of IPTP.

#### 4. Organisation and Responsibilities

The IPMP describes the overall management team structure and responsibilities along with the nominated management and supervisory personnel for the Project. The organisation chart within the IPMP also shows the lines of communications across the project team and with the Client.

The Project Director will have overall responsibility for the implementation and ongoing review and maintenance of the IPTP and the achievement of training targets set out in the Plan.

#### 5. Enterprise Training

Fulton Hogan's participant companies each have an overall management system that contain elements which ensure that the training and skills development needs of each company are identified and developed. The companies' systems satisfy the requirements of the Training Management Guidelines in relation to Enterprise Training Plans.

#### 6. Project Training

The NSW Government "Training Management Guidelines" February 2009(TM) require the development and implementation of a Project Training Management Plan. This IPTP and the subsequent PTP meets the requirements of the TMG and the Hills Motorway specific requirements as set out in the Project Deed, SWTC and Appendix 21 of the SWTC.

The structure of this IPTP reflects the structure for a Project Training Management Plan as set out in the TMG, namely;

- Apprentice and training targets
- Commitment and management responsibility
- Planning
- Prioritized needs
- Workforce participation
- Resources
- Accountability/responsibility
- Subcontractors
- Evaluation and review
- Records

The requirements set out in this IPTP are minimum requirements for the Project Training Plan and the Project Team will not decrease or otherwise reduce these requirements, including those relating to the scope, processes, procedures, effort, resources, experience or expertise, in the developed and any subsequently amended versions of the PTP.

## 7. Apprentice and Training Targets

The NSW TMG sets out training targets, comprising apprentice targets, and training targets for the workforce including subcontractors.

In accordance with the TMG, the Project category applicable is category 1, therefore, the Project Team will comply with the following criteria to establish the Project's training target:

Project Training Target	20% of the average number of site construction personnel	$15^* \times 0.2 = 3$
Apprentice Target	20% of the total number of trades people	$4^{\wedge} \times 0.2 = 0.8$
Training Target	Project Training Target - Apprentice Target	$3 - 1 = 2$

\* Average number of employees and subcontractors anticipated to be on site at any time (Excluding Client).

^ Number of Tradesmen anticipated to be on site at any time.

The PTP provides a timeframe for the implementation and monitoring of the training targets (e.g. review the above mentioned numbers at 25% of project completion and maintain the numbers until 90% of project completion). These targets will be managed so as to comply with the TMG's definition of Structured Training.

In implementing the training targets associated with the subcontractors, prior to the engagement of subcontractors, pre-award meetings will be arranged with the prospective subcontractors and suppliers in accordance with the project purchasing and procurement protocols to identify:

- Corporate training objectives; and
- Various competencies and training certificates required from their workforce.

All subcontractor and suppliers will be required to adhere to contractual obligations to comply with the TMG requirements concerning project targets for apprentices.

## 8. Planning

During the planning process, the skills already held by the workforce will be identified; so that the skills gap and skills needs to be developed to successfully deliver the Project to the Hills Motorway requirements can be determined. The following factors will be considered:

- The administrative and management skills required under the construct contract.
- The criteria established in the Contract Deed, section 2.10 of the SWTC.
- Changes in the Project Plans
- Existing skill and competency gaps.
- Legislation, Contractual Requirements, Codes of Practice, relevant Standards including relevant statutory obligations in OHS&R and Environment Management.
- Changes in the construction process.

- The requirements of the OHS Act Regulation 21 in Chapter 3, Workplace Consultation
- The requirements of the OHS ACT Regulations in Chapter 8, Construction Work
- Corporate Training Objectives, as per the Corporate Business Plan.
- Specific needs for the project as identified in the SWTC, section 2.10 (f) environmental and project specific requirements as well as items (g) and (h) for G, R, and B series of HILLS MOTORWAY D&C specifications;

Assessment of skills needs is an ongoing process which will identify the current and future training needs throughout the life of the project.

The planning process will consider the training implications of all legislation, regulations, codes, and standards relevant to the Company's activities in relation to the Project.

The planning process will ensure that the training provide on the Project will be:

- Be compatible with any enterprise or other industrial agreements applicable to the Project
- Meet the requirements of the Project OHS Management Plan, the Environmental Management Plan, the Community Management Plan, and the Project Quality Plan.

Further information on the planning process can be found in Section 10 Prioritising Needs and section 11 Workforce Participation of this Plan.

Fulton Hogan utilises all available resources to carry out its training requirements including the following training methods:

- Internal training (Including induction, tool box meetings, SWMS training, emergency response training, erosion and sediment control training etc.);
- On-the-job training;
- External training through specialist training providers; and
- Structured apprenticeships & mentor programs.

### 8.1. Capturing Existing Skills, Tickets and Qualifications

Existing qualifications, competencies and training needs of the Project Team, as applicable to their assigned duties and responsibilities will be captured through the following tools:

- Site Induction Register to capture the existing skills and qualifications of the identified skills that are required for a *TASK*; and
- Workforce Training Participation Plan (WTPP) to capture the existing skills and qualifications of the identified skills that are required for the *PROJECT*.

As each person passing through the site induction process will be required to provide documentary evidence of any prior relevant training, the project Induction Register will then be used as a preliminary planning tool to record the competency requirements with respect to OH&S and environmental legislative and regulatory requirements (i.e. mandatory tickets such as Confined Space Ticket).

The Project Induction Register will:

- incorporate the site staff, construction employees and subcontractors;
- be updated progressively to record training provided to the workforce;
- be used as a planning tool to address training requirements resulting from changes to site conditions and start of new work processes.

A matrix for Workforce Training Participation Plan will be prepared to identify any skills shortages and to develop a training program to upgrade skills and required competencies. A sample matrix is appended to this Plan.

The WTPP will not include the existing skills of the OH&S and environmental legislative and regulatory required competencies and qualifications because they will be captured in [Induction Register](#).

## 8.2 Training Need Analysis

Every members of the Project Team will have a clearly defined Position Description (PD). Each PD will address competencies key to their individual roles. The position holders will also have a responsibility matrix that is appended to the IPMP.

The PDs will be used for identifying the skills required for the Project.

The training needs analysis will be done:

- on ongoing basis through updating the appended WTPP; and
- formally through Performance Development Plans (PDP)s in accordance with the appended [Performance Development Procedure](#).

With the formal process; the members of the Project Team will be required to undergo a training needs assessment at least annually during employee performance review processes by the Project Director and/or his nominee/s to assess performance, achievement of goals and to determine the current level of competence listed in PD and assess if any further training(s) required. This assessment will form the basis for the employee's training plan for the Project.

References will be made to the Fulton Hogan Library of [Training References](#) for appropriate training and training provides as a guide during both formal process as well as during the informal ongoing process.

The identified training opportunities through both formal in informal processes will then be put into the updated version of the appended sample of WTPP so that a training program can be developed.

## 8.3 Managing the Skills gap

The gap in skills needed for the GU Project will be assessed as the difference between the skills required and the skills available. A decision will be made on whether the gap gets filled by engaging new employees or training existing employees.

To ensure the required knowledge and competencies are maintained, refresher training will be carried out if necessary for particular high-risk activities such as working at heights.

The Project Director and/or nominee(s) will be ultimately responsible for implementing identified training for the Project Team. The WTPP will be reviewed frequently for reference throughout the duration of the Project. Whilst the project Team will capture subcontractors in the delivery of training on site where necessary, it is expected that subcontractors are ultimately responsible for the training of their personnel.

## 9. Prioritising Needs

Once the required training is identified and listed in the WTPP, it will be prioritised to consider each individual's:

- Existing skills and experience;
- Interest in learning;
- Commitment to the Upgrade project team; and
- Careers aspirations.

Training needs will also be prioritised using the following criteria:

- *Mandatory*: required by law, compulsory for all nominated personnel;
- *Optional*: would be helpful to the Project.

*Mandatory* training is driven by legal and legislative requirements or where deemed necessary, instructed by the Project Director, whilst *optional* training is driven by project, organisational, personal and professional requirements.

Consideration will also be given to the urgent need of the training as follows:

- Immediately required.
- Short term (< 6 months)
- Medium term (6 – 12 months)

Given the nature of the project and large number of personnel expected to be engaged on the Project, the WTPP will effectively separate, simplify and easily identify mandatory and optional training requirements.

The training modules are in areas where staff, workers or subcontractors need to focus attention to ensure that their competence and knowledge are up to the required standard.

The HILLS MOTORWAY has identified specific needs in Section 2.10 of the SWTC in relation to bridge concreting and in particular all work undertaken under the relevant HILLS MOTORWAY design and construct specifications, B 80 Concrete works for bridges. This HILLS MOTORWAY specific need will be identified and included in the WTPP and will be allocated as Mandatory Training.



Priorities may change throughout the Project Works due to the following:

- Variations awarded with specific training requirements;
- New recruitment of personnel requiring various training needs; and
- Personnel leaving the project team, taking their qualifications and skills with them, requiring in certain instances the up skilling of existing personnel to acquire the lost skills.

The final decision on selection for training will depend upon the actual skills, deficiencies, and the needs of the individual and the project. Therefore, the WTPP will be updated accordingly throughout the project.

## 10. Workforce Participation

Following the identification and prioritising of training needs, the WTPP will be monitored on an ongoing basis as a planned training program to ensure all personnel (including the general workforce, supervisors, and subcontractors) receive the required training. The WTPP will consist of the following streams of trainings;

- Mandatory Training;
- Basic Construction and Safety Skills;
- Skills Training; and
- Environmental / Community Relations Training

### 10.1. Mandatory Training

The training program will provide for Induction Training for the Project which consists of the Safety, Environmental and Community Liaison and Quality Induction and is in accordance to the requirements of the Construction Safety Amendment (Amenities and Training) Regulation 1998.

Any personnel who have not undergone the General Industry Induction will be sent to the appropriate external course.

(General Industry Inductions are routinely undertaken by all employees new to the Construction Industry and provide the worker with an overview of the industry).

Each person participating in the site induction process will be required to provide documentary evidence of any prior relevant training. This training is to be in accordance with the Project OHS Management Plan and the Project Management Plan. A completed 'Induction Record Form' will confirm compliance with OH&S Regulations as required by the Project OHS Management Plan.

Other mandatory training includes the requirements of the contract documents, such as the requirements set under the contract specification D&C B80 where all personnel involved in the planning, placing, compacting and curing concrete are required to undertake RMS Grey Card Training.

The WTPP will identify the mandatory trainings that are required for the Project and will:

- Be updated progressively to record training provided to the workforce; and
- Be used as a planning tool to address training requirements resulting from changes to site conditions, start of new work processes and for prioritising the workforce training needs.

## 10.2 Basic Construction and Safety Training

The WTPP will also provide basic construction, safety and environmental skills aimed at providing a comprehensive overview of the construction industry and as well as specific aspects of the Project. Training would be held either internally or externally in the training facility and would utilise the use in-house or external training providers.

An example of the training to be undertaken would include:

- First Aid, CPR, EAR – a recognised training provider such as St. John's Ambulance to update, renew or train first-aiders.
- Personal Protective Equipment – based on the Workplace Health and Safety Code of Practice Personnel Protective Equipment (this forms an integral part of everyday work and is often overlooked).
- Manual Handling – based on the Workplace Health and Safety Code of Practice Manual Handling.
- Use of Power Tools and Portable Equipment – a major part of site work that requires specific training, either from the manufacturer or a tradesman.
- Environmental awareness training.

Safe Work Method Statements (SWMS), emergency response, and erosion and sedimentations control applications issued to the workforce (including subcontractors) will incorporate specific details concerning the training, qualifications and competencies needed. Also, that the assigned personnel hold the stated training, qualifications and competency certificates as applicable.

Weekly Toolbox and Daily Pre-start meetings will be extensively used to review and communicate construction issues as they arise. Under the management of our nominated Supervisor or Foreman, Toolbox and daily Pre-start meetings will be used to:

- Review Safety (including safety alerts), environmental, quality and community related issues and identifying any training requirements.
- Instruct personnel on reviews to SWMS.
- Receiving feedback from workers on relevance of training.

## 10.3 Skills Training

As indicated in Section 8 "Planning" of this IPTP, the Project Director in conjunction with the Regional IR/HR Manager will undertake a skills needs analysis for the project. The needs will be matched against the available skills and qualification base of the project team, including certificates, permits and length of experience.

Skills assessment records listing all personnel and details will be kept for each employee in a matrix format known as WTPP. An individual training program will then be developed based on the needs identified by the skills assessment.

The Induction Register will be reviewed monthly to ensure that licences, certificates, refresher training, etc are renewed or carried out as appropriate so that the qualifications remain current.

#### 10.4. Environmental/Community Relations Training

Project personnel will be provided with a comprehensive induction and ongoing briefings on the key environmental issues associated with the works.

Environmental training may include environmental awareness training and blue book training.

Community Relations is also a major consideration and therefore to meet the requirements of Section 8.10 of the SWTC, Induction Training will also include awareness of community issues and how to respond to community queries.

Where necessary, suitably qualified trainers will be engaged to develop and deliver training. Where applicable, training specifications will be developed and prospective training providers asked to respond to the training specifications by presenting training proposals. All training proposals will be review and assessed for suitability. Training providers that are selected will then be review and assessed for ongoing performance.

### 11. Resources

The Project team will utilise all available resources to carry out its training requirements including the following training methods:

- Internal training (including induction, toolbox meetings, SWMS training, emergency response training, erosion and sediment control training, etc.)
- On the job training
- External training through specialist training providers
- Apprenticeships and mentor programs

Resources will be made available to comply with statutory and contractual requirements; depending on the specialized nature of the training required and the availability of internal resources, external training providers may also support in the delivery of this training plan.

To enable the successful delivery of the project works, it is imperative that the project team is adequately resourced. Resources include human, physical (e.g. facilities and equipment) and financial resources. When considering these resources appropriate procedures and costs will be taken into consideration.

A modern training and induction facility will be located at the Main Project Office and will be detailed as part of the Site Establishment Plan. The facility will be resourced with the

necessary tools and equipment to facilitate the on-site training sessions planned for the project works.

## 12. Accountability and Responsibility

The Project Manager will have overall responsibility for the implementation and ongoing review and maintenance of the PTP and the achievement of training targets set out in the Plan.

The Safety Representative, Environmental Manager and Community Relations Manager will provide assistance in skills assessment, specialised and induction training in their respective fields of expertise.

The process and accountability for training is set within the Overall Project Management Plan.

## 13. Subcontractors

The Project Team will seek subcontractors that have sufficient resources to implement training and skill development, and have the ability to fulfil their training management obligations. Assessment of a subcontractor's ability to fulfil training management will be based generally on the checklist in the TMG, as required.

When selecting subcontractors through evaluation processes outlined in Quality Management Plan (QMP) using Pre-award Interview and Assessment Form, Fulton Hogan will assess subcontractor's capacity in fulfilling their training management obligations and Fulton Hogan will also encourage ongoing development and delivery of training initiatives on the project in accordance with the TMG during this evaluation process. Regular input on progress against training targets will be required from all subcontractors.

Subcontractors will be required to prepare and submit their own training plan and skills matrix to complement the PTP and to ensure subcontractor's compliance with training management requirements is monitored and assessed. If a subcontractor is unable to produce their own training plan and skills matrix, then Fulton Hogan will manage the subcontractor through workforce participation measures. The measures will include reviewing subcontractor's achievements during the life of the subcontractor's contract with Fulton Hogan.

Implementation of the subcontractor training plans will be reviewed and monitored by the Project Manager or nominees in consultation with the site quality, safety and environmental representatives.

## 14. Evaluation and Review

A system of internal management review will be established to verify that the PTP is being implemented and is effective.

Training management activities will be monitored to make sure that:

- Everyone understands and works towards the objectives of the PTP;
- The training schedule stays up to date, so learning activities match production or business requirements;
- The trainees and the resources they need are available when needed; and
- Workforce participation targets are achieved.

The effectiveness of training and inductions will be determined from:

- The achievement of training objectives by the Company and its subcontractors;
- Feedback from the field as to the effectiveness and relevance of training provided; and
- Minimisation of safety, environmental and quality non-compliances arising from shortcomings in personal competencies.

Review will be undertaken by the Project Manager or nominee during project delivery to track the recorded cost of training and the benefits of training in key areas such as:

- Enhancement of the skills base;
- Reduction in lost-time injuries;
- Improvement in production efficiency; and
- Environmental awareness;

Employee Training Evaluation Form will be completed to ensure the training are up to the required standard.

If a slippage, delay or unforeseen event causes a delay in meeting the project-training target the project will endeavour to fulfil the target in the next reporting period. However if this is not possible then consultation with the Project Management Team will be made to resolve the issue.

The Project Manager will be responsible for ensuring that corrective action is taken immediately to remedy any deficiencies found. The process of managing any corrective actions will be carried out in accordance with the Project Quality Management Plan (QMP).

The Project Manager will report on the effectiveness of the Project Training Plan on a regular basis to Fulton Hogan Senior Management and the Client, as required.

The Project Manager will be responsible for ensuring that corrective action is taken immediately to remedy any deficiencies found.

## 15. Training Records

The Projects training management record system will be in an electronic format and include:

- Work Force Training Participation Plan (WTPP) that summarises the training needs;

- Induction Register identifying all the personnel (including subcontractors) who are qualified, certified or trained to perform a specific task of activity including copies of trade qualifications, certificates and licences;
- Training attendance records;
- Toolbox records;
- Visitor Induction Records
- Induction records and questionnaire
- Induction and training feedback forms
- Management reviews and follow-up action; and
- Other communication records.

All training records will be maintained and collated by a Project Team. All training records will be scanned and uploaded on to each personal file, as required.

Copies of all competency records, training plans, conducted training; training appraisals and assessment will be stored at site and archived at project completion in accordance with the archival protocol allocated in the PMP.

At State level, Fulton Hogan maintains a personal file for each employee at the State's Head Office which is accessible to all Projects in NSW. Records include scanned copies of the following documents:

- Copies of certificates of attainment
- Trade qualifications, licenses and certificates of competency, etc
- Internal training registers identifying all the personnel who are qualified, certified or trained to perform a specific task or activity;
- A corporate training database incorporating the qualifications, skills, competencies and training attained by all personnel employed by Fulton Hogan;
- Registers identifying all the Fulton Hogan personnel and external service providers, who are qualified, certified or trained to perform a specific task or activity.
- Other training records maintained at Head office include the training provider details and payment records; and
- Training attendance records;

## 16. Client Review

The Project Team acknowledges that the Client has certain responsibilities under the TMG to undertake implementation reviews of the PTP. Therefore, this ITP will be submitted to the Hills Motorway Representative, as required by clause 3.8(c) of the deed, within 60 days of the date of the deed and an up to date copy will be maintained on site.

The Project Team will not commence any work on site until this plan has been submitted to Hills Motorway Representative.

All reasonable assistance including access to all training management records will be given to the Client Representative reviewer during the client review process including attendance and participation by the appropriate on-site Contractor's representative during the process.

The PMP will identify internal and external audit schedules for review and validation of the PTP.

## 17. Requirement Matrix

The requirement matrix that is accompanied to this Plan is developed to assist users and reviewers to identify where various elements of TMG and HILLS MOTORWAY requirements are addressed in this Plan in particular to Appendix 21 of SWTC.

## 18. Related Forms and Procedures

[Human Resources Manual](#)  
[Performance Development Procedure](#)  
[Training Procedure](#)  
[Fulton Hogan Enterprise Training Plan](#)  
[Inductions Register](#)  
[Training Attendance Record](#)  
[Training Evaluation Form](#)  
[Toolbox Meeting Agenda](#)  
[Daily Prestart Meeting Agenda](#)

## 19. Terms and Definitions

**Apprentice:** any person engaged in a formal apprenticeship or traineeship as provided for in State vocational education and training legislation.

**Competent Person:** a person who has acquired through training, qualification, or experience, or a combination of these, the knowledge and skills needed to qualify the person to perform the task required.

**Project Training Target:** the number of persons participating in structured training.

**Skill Development:** any work related learning or training activity that results in enhanced skills, knowledge and aptitude to perform a job.

**Structured Training:** a program through which competencies are specified and lead to a recognised qualification; learning is planned, organised and sequenced to achieve workplace competence; method of training delivery appropriate to the achievement of competence are chosen; quality training resources are used to assist those being trained to learn, and assessment events are planned and undertaken at appropriate points throughout the training development activity.

**Subcontractor:** external parties carrying out works on the project which included, subcontractors, suppliers and consultants.

**Training:** the development of skills, knowledge and aptitude to perform a job.

## 20. Related Standards/Legislations/Regulations/Guidelines/Codes

*Fair Work Act 2009*

NSW Apprenticeship and Traineeship Act 2001  
NSW Department of Commerce Training management Guidelines Feb 2009

## 21. Appendices

Appendix A – Sample Workforce Training Participation Plan

Appendix B – Organisational Chart

### Revision History

Rev	Revised By	Reviewed & Approved By	Date	Description/Summary of Changes
0	–	A. Vasilaras	30/10/12	Initial issue for tender.
1	A.Vasilaras	A. Vasilaras	10/12/12	Amended incorporation RMS review comments.



**Appendix V - Appendix 35 to Exhibit A to the Upgrade Project Deed**

**Appendix 45 Industrial Relations Strategy**



## Initial Industrial Relations Plan

### PROJECT: M2 LANE COVE ROAD ON RAMP PROJECT

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3	Independent Verifier - SKM	Independent Verifier's Director

Originated and Revised by: Byron Fitzgerald – Regional IR/HR Manager	Reviewed and authorised by: Arthur Vasilaras - Project Manager
_____ (Signature/Date)	_____ (Signature/Date)

Fulton Hogan Construction Pty Ltd – Central (ABN 46 010 240 758), L3, 61 Dunning Avenue, Rosebery, NSW 2018

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## Acronyms

FWBC	Office of the Australian Building and Construction Commissioner
CODE	National Code of Practice for the Construction Industry (Code) and the Australian Government Implementation Guidelines (Guidelines)
D&C	Design and Construct
EA	Enterprise Agreement
EBA	Enterprise Bargaining Agreement
FWA	Fair Work Act
HR	Human Resources
HRIR	Human Resources and Industrial Relations
IR	Industrial Relations
IRP	Industrial Relations Plan
KPI	Key Performance Indicator
KRA	Key Review Area
MCOS	Minimum Conditions of Satisfaction
MBA	Master of Builders Association
NCR	Nonconformity Report
OHS	Occupational Health and Safety
PMP	Project Management plan
SWMS	Safe Work Method Statement
SWTC	Scope of Works and Technical Criteria

## 1. Project Description

The MN2 Lane Cove Road On Ramp Project is a Design and Construct (D&C) Project, which involves designing and constructing a new eastbound on ramp from Lane Cove Road to the M2 Motorway at Macquarie Park with motorway widening between the new ramp and the existing Delhi Road eastbound off ramp.

## 2. Introduction

The success of any project is highly dependent on the competence of the people employed. Therefore, the project team is committed to the development and implementation of this Industrial Relations Plan (IRP). This plan describes Fulton Hogan's overall strategy for managing and controlling the delivery requirement on this Project.

This IRP interfaces with the other associated plans, which together describe the proposed overall project management system for the Project.

This IRP is applicable to all staff, employees and subcontractors throughout the duration of the contract until project completion and its implementation and on-going development will be managed by the project team.

The latest revision of this plan is available on the Fulton Hogan server. If any unsigned hard copies of this document are printed, they are valid only on the day of printing.

The revision number is included at the bottom of each page. When revisions occur, the entire document will be issued with the revision number updated accordingly for each owner of a controlled copy.

Attachments/Appendices to this plan are revised independently of this plan.

## 3. Scope

This Plan has been established to provide users with the information, guidelines and objectives and instructions needed to effectively manage and control the Industrial Relation aspects of this project and ensure that industrial relations issues and risks are identified, assessed and managed.

This IRP addresses the following key elements as set out in the Guidelines:

- Commitment and management responsibility
- Planning including risk identification, assessment and management
- Implementation including resourcing, accountability and subcontractors
- Measurement, evaluation and review

## 4. Commitments

### 4.1. Policy and Standards

Fulton Hogan values enormously its people and their work and believes that with goodwill, honesty and positive communication conflicts can be resolved.

Fulton Hogan is committed to improving its industrial relations management performance at both the enterprise and project levels by:

- Complying with all applicable Industrial Laws, Regulations, Statutory Obligations, Awards, Agreements and National and State Codes of Practice and Guidelines
- Providing fair and reasonable management of industrial issues
- Maintaining an open relationship with its employees and any elected representatives and other interested parties
- Recognizing its employees' entitlement to representation in accordance with awards and agreements
- Monitoring industrial relations performance and activities of subcontractors and suppliers and maintaining effective communication

Fulton Hogan implements Industrial Relations Policy to demonstrate the Company's commitment to ensure the industrial relations requirements is achieved throughout the duration of this Project. This Policy applicable to this Project includes the following:





# Industrial Relations

Fulton Hogan will:

- Comply with all applicable industrial laws, regulations, statutory obligations, awards, agreements and National and State codes of practice and guidelines.
- Provide fair and reasonable management of industrial issues.
- Maintain open and respectful relationships with our employees and any elected representatives and other contractors and sub-contractors to promote communications that work to prevent direct action wherever possible.
- Recognise our employees' entitlement to representation in accordance with awards and agreements.

Assess and monitor subcontractors and suppliers with regards to employee management and industrial relations compliance to Fulton Hogan policy

Manage cohesive industrial relations through all our employees, supported by industrial relations specialists, management and work supervisors.

Nick Miller  
 Managing Director  
 June 2010



[www.fultonhogan.com](http://www.fultonhogan.com)

## Standards

Standards supplement the commitments and policies of the Company, and set down more detailed and specific requirements of Fulton Hogan and reinforce the Fulton Hogan

commitment to employee matters. The following standards will also be adopted in this Project:

**Fulton Hogan** Employee Behaviour Standard

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**Acceptable Behaviour Standard**

Fulton Hogan is committed to, and operates in the United Kingdom under the Code of Practice on the Fair Employment Practices and Procedures (Code of Practice) and any other applicable legislation and to ensure that all its employees are treated fairly and with respect. The Company will ensure that all its employees are treated fairly and with respect.

All employees are expected to treat each other with dignity and respect. The Company will ensure that all its employees are treated fairly and with respect.

Any employee who is reported to be in breach of the Code of Practice will be subject to disciplinary action in accordance with the Company's Disciplinary Procedure.

Disciplinary action may be taken against any employee who engages in bullying, harassment or sexual harassment in any other form of harassment of another employee or employees. Such action may include suspension, a warning, transfer, dismissal or termination of employment.

**Bullying**

Bullying is the repeated and unwanted conduct of a person by another or others in the workplace which may cause a risk to physical or emotional health and safety.

Examples of behaviour that may be considered bullying include:

- Unwanted contact from work-related activities
- Using someone's weakness or vulnerability
- Verbal abuse
- Physical abuse
- Humiliation through sarcasm or abuse
- Intimidation
- Excessive work
- Exclusion

**Sexual Harassment**

Sexual harassment is unwanted and offensive behaviour of a sexual nature which makes the person harassed feel intimidated, humiliated or offended.

Sexual harassment can include:

**Fulton Hogan** Code of Conduct Standard

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**Code of Conduct**

A Code of Conduct sets out the standards expected of all employees. It provides a basis for understanding the ethical issues and standards of behaviour that apply to our various business activities.

Adherence to the Code is essential to the Fulton Hogan's success and reputation. It applies equally to every employee in the Company. It sets clear standards of behaviour which are essential to the success of the Company. It also provides a basis for understanding the ethical issues and standards of behaviour that apply to our various business activities.

The Code applies to all employees, full-time and part-time, and to all employees who are seconded to any other company or organisation. It also applies to all employees who are seconded to any other company or organisation.

Employees who are seconded to other companies and who are required to be in compliance with the Code of Conduct should ensure that they are fully aware of the Code of Conduct and its requirements.

**Confidentiality and Ethics**

All employees will be expected to adhere to the Code of Conduct. Employees who are seconded to other companies should ensure that they are fully aware of the Code of Conduct and its requirements.

**Confidentiality**

Employees are encouraged to participate in confidential discussions, meetings or other arrangements and other arrangements. The Company will ensure that employees are fully aware of the Code of Conduct and its requirements.

- where a specific time commitment is required, the ability does not interfere with the person's ability to satisfactorily perform their Company work
- where the specific time commitment is a matter of last-minute or other arrangements, employees must be fully aware of the Company's requirements
- Employees must not divulge confidential information or represent themselves as representatives of the Company.

**Fulton Hogan** Employee Assistance Program

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**EMPLOYEE ASSISTANCE PROGRAM**

Our Company recognizes that personal problems can and do affect the health, well-being and work performance of our people at work time in their lives. In an effort to help employees manage healthily issues of personal and physical well-being, and to help the stress of personal problems on job performance, the Company has established an Employee Assistance Program (EAP). The EAP is designed to provide confidential counseling and support services to employees and eligible family members who may be experiencing problems. Services provided by the EAP are provided through a contract with a third-party provider, an independent counseling service provider.

**How does EAP work?**

The EAP offers confidential, short-term counseling and referral services.

**Who is eligible to participate in the program?**

The EAP is available to employees and their dependents. [View participation in the program at: www.fultonhogan.com](#)

**What pays for the services?**

EAP services are offered to all full-time employees and their dependents at no cost. These services are paid for by Fulton Hogan. If longer term counseling or specialist treatment is required, charges for these services are the responsibility of the eligible individual. Such services may be covered under provisions of a medical benefit fund. Company assistance may be provided to special circumstances.

**When should I use this program?**

As soon as you recognize that you or a family member may have a problem. It is always better to seek help before a situation becomes critical. Even if you are not sure you need help, a call to the EAP is useful as it is a confidential service and a better perspective. It is about something that takes up considerable time in your thoughts, causes stress or stress, or is affecting your job performance.

**Will using the EAP, and my issues be adversely affected?**

No, the EAP is an employee benefit. Details for enrolled employees are based on job performance. There may be an exception when your performance declines relative to the EAP. A general provision applies to all employees.

**Fulton Hogan** Equal Employment Opportunity – Affirmative Action Standard

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**Equal Employment Opportunity – Affirmative Action Standard**

**Definitions**

Equal Employment Opportunity (EEO) means that discrimination shall not exist in the workplace due to race, color, religion, sex, age, national origin, disability, marital status, sexual orientation, pregnancy, genetic information, or other protected characteristics. Affirmative Action is a process of identifying and removing barriers to employment and to promote opportunities for women in the workplace. Affirmative Action does not mean discrimination against men. It does mean supporting the right women to the right job, offering equality in employment, training, benefits and promotion – regardless of gender.

**Approach**

Fulton Hogan believes in advancement through merit and ensuring that all opportunities are to the most suitable person. Our objective is to provide fair and equitable treatment for all employees. Please see General program will be under Equal Employment Opportunity (EEO) and Affirmative Action for further details.

The aim of this program is to ensure that all employees are treated equally and fairly, regardless of race, color, religion, sex, age, national origin, disability, marital status, sexual orientation, pregnancy, genetic information, or other protected characteristics. This means that Fulton Hogan will:

- provide equal opportunity for all staff members in all aspects of employment, including recruitment, remuneration, and conditions of employment, development, promotion and termination;
- ensure that all staff recruitment, remuneration, development and promotion decisions are made on the basis of a staff member's merit and ability relative to the job requirements;
- encourage all staff members to gain the necessary skills and experience to enable them to advance to the extent of their individual capabilities and potential;
- recognize that all employees have part to play in ensuring the provision of equal opportunity.

**Responsibilities**

- ensure a consistent approach to recruitment and selection is followed, ensuring that all employees are treated equally and fairly;
- ensure that all staff members are treated equally and fairly, regardless of race, color, religion, sex, age, national origin, disability, marital status, sexual orientation, pregnancy, genetic information, or other protected characteristics.

The following are the responsibilities of the Affirmative Action Officer (AAO):

- ensure consultation with employees in order to, encourage contribution and support for the program and to ensure that it is appropriate to the needs of employees;
- ensure statistical reports of the current workforce of the organization to enable employment patterns of race and ethnicity in Fulton Hogan.





### 4.1.1. Objectives

The main objective of this plan is to maintain industrial harmony on this project by establishing management control measures that can:

- Eliminate industrial disputes which are a result of mishandling workforce grievances, unsafe workplace conditions, inappropriate payment of wages and entitlements, and inappropriate industrial practices;
- Improve the effectiveness of Fulton Hogan's Industrial Relations Program by integrating industrial relations planning and control requirements into the Integrated Management System;
- Establish a strong cooperative relationship with the workforce and with their employee organisation based on mutual trust and respect;
- Engage with the workforce so they are active and rewarded participants in the project delivery process;
- Continue strengthening of long term working relationship with subcontractors, suppliers, consultants and employer/employee organisations;
- Provide an effective consultation process and audit program that early identifies potential area of concern;
- Ensure that Fulton Hogan's operations and their sub-contractors comply with the National Employment Standards prescribed in Fair Work Act;
- Prevent industrial disputes, and improve project performance;

- Minimise the time and effort expended by Fulton Hogan's staff resolving industrial, safety or employment grievances raised by employees or by their industrial representative organizations;
- Establish a mechanism to effectively plan and control the industrial aspects of the project;
- Provide a framework for consultation with the workforce;
- Provide an effective consultation process and audit program that early identifies potential area of concern;
- Select subcontractors who have an effective Industrial and Safety record, and who have the capacity and commitment to comply with statutory safety, industrial and employment regulations;
- Pre-award meeting with prospective subcontractors to clarify the subcontract scope of work, and to ensure that subcontractors are fully aware of Fulton Hogan's Industrial, Safety and other critical project management requirements;
- Monitor the subcontractors and verify their continued compliance with project requirements and statutory regulations;
- Comply with Fulton Hogan Policy.

#### 4.1.2. Targets

- The project targets are to achieve zero industrial disputes thereby eliminating the risk of delays and cost overruns;
- Ensure that subcontractors have been audited by an employer association to sustain evidence of compliance; and
- Ensure that all relevant staff undertakes industrial relations training so they are confident in dealing with workplace issues.

#### 4.2. Duties, Accountabilities and Responsibilities

Detailed Duties and Responsibilities are provided for project team members in the Project Management Plan and as per following sections:

##### **Project Manager**

- Implementing the Project Industrial Relations Plan;
- Assigning IR responsibility and authority to members of the site staff;
- Liaising with employees and their union representatives on IR issues of concern raised by the site construction workforce.;
- Liaising with subcontractors' senior representatives on IR issues of concern;
- Resolving IR issues or elevating the issues to Fulton Hogan's senior executives for resolution;
- Ensuring that IR records are maintained;
- Maintaining adequate communications with the Client;
- Ensuring that the site induction process includes a verification of subcontractors IR

Data; and

- Elevate issues as necessary to senior executives for resolution.
- Ensure that the proposed site establishment is in accordance with award requirements and provides an environment conducive to good industrial relations;
- Develop, maintain and enhance good working relations and industrial harmony on site;
- Ensure effective communications are maintained with the workforce;
- Maintain effective consultation with workers' representatives on industrial, safety or other consultative committees ;
- Ensure subcontractors legal industrial relations obligations are identified and adhered to in respect of employees engaged on the Project; and
- Keep the Senior Project Engineer/Engineer and the Project Manager informed of any grievances or issues.
- Gather IR data on sub-contactor compliance & initiate necessary actions;

#### **Engineers**

- Ensures open lines of communication are maintained with all subcontractors and suppliers on their contractual obligations;
- Communicate with the workforce to ensure that they are aware of developments and progress on the Project; and
- Keep the Project Manager informed of any grievances or issues.

#### **Superintendent& Foremen**

- Develop, maintain and enhances good working relations and industrial harmony on site;
- Demonstrate a professional role model by personal example;
- Ensure that accurate timesheets for employees are submitted to the Site Office in accordance with the specified deadlines;
- Maintain effective consultation with workers' representatives on industrial, safety or other consultative committees; and
- Pro-actively manage work-force industrial issues as they arise including issues related to inclement weather. Refer major issues to the Project Manager. Where practical propose measures that can resolve any issues.

#### **Leading Hands**

- Advising the Foreman and subcontractor representatives when Industrial, Employment or Safety grievances are raised by the workforce.

#### **HR Manager**

- Initially, inform the pay office of the project start and the terms and conditions to be paid, including nominating the allowances to be paid in accordance with the Enterprise Agreement;

- Liaise with the relevant union offices and union officials who will be involved in the project;
- Ensure the proposed site establishment:
  - Is in accordance with award requirements;
  - Provides a safe work environment;
  - Provides a working environment conducive to good industrial relations;
- Ensure that disputes are resolved in a professional manner in line with company policy;
- Ensure all employees are paid the appropriate wage rate for duties performed as set out in the EBA;
- Brief and instruct site staff in their roles and responsibilities in promoting good industrial relations; and
- Resolve industrial issues or elevate them to the next level of authority.

### **Employer Association**

- Conduct pre-start and on-going compliance audits of major subcontractors on site
- Regularly check each subcontract employers' obligations for employment conditions and payments to their employees

## **5. Planning**

### **5.1. Compliance**

Planning, formulating and establishing an effective and up to date Industrial Relations Management Program is required to be carried out in order to incorporate IR planning and control requirements which can:

- Assist Fulton Hogan to achieve a desired outcome of zero time lost due to industrial disputes.
- Ensure that Fulton Hogan and its subcontractors are in compliance with the applicable employment acts and legislation. This is applied relative to the definition of a national employment system.
- Ensure that Fulton Hogan and its associated subcontractors are in compliance with the following:
  - Federal and state awards, industrial relations and employment acts and legislation, and other associated regulations and the codes of practice.
  - Fulton Hogan/subcontractor Enterprise Agreements, as applicable to each organisation. Fulton Hogan's IR management planning and control requirements as detailed in this procedure and referenced documents.

The legal obligations relating to industrial relations and employment that may be relevant to the Project is listed under Related Legislations/Codes of Practices/Awards of this Plan.

5.2. Key Issues

This project presents a number of challenges that are required to be dealt with by the members of the project team. For the purpose of this plan, the key issues and proposed mitigation measures are addressed in the Project Risk Register that is appended to the Risk Management Plan (RMP).

In addition, Fulton Hogan has also identified the following potential risks and possible mitigation measures as shown in the table below:

Risk	Likelihood	Impact	Mitigation Measures
Fulton Hogan Compliance with State and Federal Legislation	Unlikely	Major	<ul style="list-style-type: none"> <li>Identification of all Federal and State awards applicable to the Project prior to commencement of work on site</li> <li>Signed Declaration on Fulton Hogan's letterhead for the preceding 12 months to be submitted to the RMS as part of the IRP</li> <li>Statutory Declaration will be submitted on a monthly basis with regards to the payment of wages and subcontractors together with certificates of currency for all insurances, long service payments, worker's compensation insurance</li> </ul>
Subcontractor Compliance with State and Federal Legislation	Possible	Major	<ul style="list-style-type: none"> <li>Establishment of a pre-qualification criteria for subcontractors to ensure that only those companies that have the capability to manage their workforce and carry out their work to a high standard are selected for the Project</li> <li>Establishment of Audit Compliance Program by a third Party such as the MBA of NSW which will establish the extent to which subcontractors, suppliers and consultants are compliant with their obligations under the applicable State &amp; Federal Legislation</li> </ul>
Compliance with the National Code of Practice and Guidelines	Unlikely	Major	<ul style="list-style-type: none"> <li>Start-up and on-going compliance audits of all subcontractors to be engaged on the Project to be undertaken by 3<sup>rd</sup> party auditor such as MBA of NSW</li> </ul>
Resource shortage	Unlikely	Major	<ul style="list-style-type: none"> <li>Fulton Hogan's Construction Divisions in Queensland and Victoria can</li> </ul>

			provide resources if requested
Employment of Apprentices	Unlikely	Significant	<ul style="list-style-type: none"> <li>Project Training Plan to set apprentice targets and training targets, consistent with NSW Training Management Guidelines (February 2009), for the workforce including subcontractors.</li> </ul>
Creating employment opportunities for Indigenous Australians	Unlikely	Minor	<ul style="list-style-type: none"> <li>Aboriginal Participation Plan for the Project developed in consultation with the Local Aboriginal Communities, before site works begin</li> <li>Regular review of the Plan by the local agent to ensure that it is being correctly implemented and that the performance targets are being met.</li> </ul>
Effective consultation and communications with the site based workforce	Unlikely	Minor	<ul style="list-style-type: none"> <li>IRP to contain appropriate consultation processes and procedures</li> <li>Informal communications between workers and management to foster an “open door” policy which promotes trust and honest communications</li> <li>Regular toolbox meetings</li> <li>Site-based employee consultative committee</li> </ul>
Grievances raised by an employee (Safety & Industrial)	Unlikely	Major	<ul style="list-style-type: none"> <li>Procedure to manage the timely resolution of industrial grievances incorporated in IRP</li> </ul>

### 5.3. IR Project Contingency Planning

#### 5.3.1. General

The details provided below have been established to prevent industrial disputes from occurring at Fulton Hogan’s work sites. Its aim is to minimise the frequency and severity of industrial/employment or safety grievances being raised by the site workforce or their union representatives through appropriately planned preventive measures. Where additional site specific industrial issues are identified by Fulton Hogan, contingency plans shall be reviewed and established to prevent the issue from turning into a dispute.

#### **Subcontracted Activities**

Fulton Hogan has developed contingency plans which incorporate strategies that are aimed at assisting and supporting subcontractors who are experiencing serious difficulties and/or are not willing to carry out their contractual obligations due to the following:

- Failing to comply with statutory industrial/employment regulations;
- Failing to comply with subcontract conditions, or with Fulton Hogan's site safety and environmental rules and requirements;
- Insolvency or bankruptcy;
- Difficulties in providing the manpower, plant, or expertise needed to carry out the works in a prompt and appropriate manner meeting Fulton Hogan's project construction program; and
- Failing to carry out the site construction works:
  - In a safe and appropriate manner.
  - In accordance with the applicable Australian Standards, construction drawings, and technical specifications that are referenced in the subcontract.

The following support strategies shall be reviewed and the most effective and appropriate solution shall be selected, as applicable to the subcontractor's current status:

- Providing the appropriate level of financial support to the subcontractor by:
  - Facilitating the acquisition of the subcontractor's materials and plant requirements.
  - Increasing the frequency of progress payment.
  - Directly paying the wages of subcontractors' site construction workforce in addition to other employer obligations and employee entitlements.
  - Reducing subcontractors' scope of work.

Prior to Fulton Hogan's decision to exercise its right to terminate a subcontractor for cause all options available to Fulton Hogan shall be reviewed, and the most cost/ time effective and appropriate options shall be selected. Fulton Hogan's' procurement strategy shall be affected by the completion status of the subcontracted works and the impact delays to its completion will have on the project's final completion date. Actions available to Fulton Hogan shall include the following options:

- Use Fulton Hogan's current workforce, and/or recruit additional personnel with the technical skills needed to complete all or a portion of the remaining works;
- Negotiate with other known subcontractors to complete all or a portion of the remaining works;
- Procure all materials required to complete the works, and negotiate labour/plant/ unit rates:
  - With a known subcontractor;
  - With a subcontractor currently carrying out works on site;
- A combination of the above.

### 5.3.2 Consultations and Communicating Strategy

#### Coordination Meetings

Fulton Hogan's [Communications Manual](#) and the Project Management Plan (PMP) incorporate management planning strategies that are aimed at maintaining a line of communications with all stakeholders.

These strategies are focused on arranging various management coordination meeting venues between representatives from Fulton Hogan and various stakeholders.

### **Distribution of Industrial Publications**

Fulton Hogan is a long standing and active member of the following industrial organisations:

- Master builders Association (NSW).
- Australian Contractors Association.

Fulton Hogan employees currently holds positions on the following committees:

- MBA NSW – Industrial Relations Sub-Committee
- MBA NSW – Joint OHS Committee Chair

Fulton Hogan therefore regularly receives publications from the aforementioned employer industrial organisations containing critical IR data. These organisations also invite members to attend seminars and workshops when there are changes to industrial regulations and/or employment entitlements that employers must be made clearly aware of.

There are also a number of publications and brochures that are regularly distributed by the employer organisations and other specialist consultants highlighting various issues of concern and proposing (where appropriate) actions that can successfully prevent industrial disputes from occurring.

Fulton Hogan's HR Manager is responsible for attending these seminars and workshops and for inviting others to attend the same. IR data and information provided by the aforementioned publications must be reviewed and actioned by the HR Manager as and when deemed necessary.

Where the IR data and information is required at the project work sites, copies of the brochures and publications shall be distributed by the HR Manager to the various construction work sites for their information and action, as required.

### **5.3.3 Settlement of Workforce Grievances and Industrial Disputes**

Fulton Hogan shall review and resolve industrial grievances raised by its workforce in accordance with the dispute settlement provisions of its EBA, and shall provide all the resources necessary to resolve the dispute in a prompt and timely manner.

Where the dispute is not promptly resolved, Fulton Hogan shall be the party to an application to the appropriate Industrial Relations Commission for matters pertaining to the Commission's jurisdiction and to the FWBC for remaining matters, for a settlement to the disputed matter.



While the dispute settlement process is being followed, Fulton Hogan will ensure that all parties to the dispute (including Fulton Hogan) are in compliance with the following:

- Industrial actions (in any form) against any parties or persons will not be tolerated, and will be reported to the FWBC;
- The industrial conditions existing on site prior to the dispute will continue unchanged; and
- Work will continue in a normal fashion without harassment or prejudice.

#### 5.3.3.1. Addressing Grievances Raised by Fulton Hogan's Workforce

The Payroll Division will ensure that wages and employment entitlements due to Fulton Hogan's workforce are appropriately and promptly paid and/or accrued, and:

- For each employee, identify the applicable trade/award classification; establish their award and employment conditions based on employment legislation and/or the EA. This function is carried out by Fulton Hogan's HR Manager in conjunction with the employees' responsible supervisor;
- The record of the hours of work carried out by each employee on a weekly basis is received;
- Establish the total weekly standard and overtime hours worked by each employee, in addition to the employment entitlements;
- Calculate the total amount due and the taxes being deducted from the weekly wages; and
- Arrange direct payment of wages due to the employees' bank account.

Award and employment entitlements include:

- Annual Leave;
- Public Holidays;
- Personal Leave (sick, carers, compassionate, community service);
- Long service leave;
- Workers compensation and rehabilitation;
- Superannuation Levy;
- Redundancy; and
- Living away from home, travel and other allowances, and entitlements.

All employees must be encouraged to promptly inform their direct work supervisor of any personal grievances related to workplace bullying, racial and gender discrimination, or grievances related weekly wages and employment entitlements etc.

To ensure that reasonable employee grievances are promptly actioned and resolved, the responsible work place supervisor/manager must promptly implement the following actions:

Wages, employment conditions and entitlements:

- Clearly understand the reasons for the employees' grievances and concerns;

- Review discuss and resolve the employees' grievance with the Payroll Administrator, and where appropriate, with the HR Manager. The review process shall incorporate reference to the following , as applicable:
  - Identifying the appropriate award trade/classification applicable to the employee based on their latest work assignments and skills;
  - Fulton Hogan's' Enterprise Agreement; and
  - Federal or state award conditions, and associated employment entitlements.
- Advise the employee on the outcome of this review, and of the actions taken to resolve their grievances and concerns and ensure that the employee is fully satisfied with the outcome;
- If the employees' grievance could not be resolved, the responsible supervisor/manager shall arrange a formal meeting with the employee and the following personnel to resolve his/her grievance and concerns:
  - The Payroll Administrator; and
  - The HR Manager.
- The EBA dispute settlement provisions must be promptly implemented if the employees' grievances are not resolved.

#### **Other Grievances and Concerns**

Grievances reported by a Fulton Hogan employee of work place harassment involving bullying, racial/gender/religious discrimination, or inappropriate actions must promptly dealt with by the responsible supervisor as follows:

- Clearly understand details of the circumstances and actions that lead to the employees' complaint;
- Identify the people who were directly responsible for the employees' complaint;
- Carry out the investigation and subsequent actions in accordance with the referenced protocols in References section of this Plan;
- Inform the workplace superintendent and request their assistance in determining the best course of action needed to resolve and prevent recurrence of similar grievances. Highlight the issue to the general workforce during the next scheduled toolbox meeting; and
- Record the process.

Grievances may arise from the workplace over a number of issues which may extend from interpersonal relationships or job management issues. The HR procedures and forms referenced in this Plan provides a consistent and fair approach to the management of those issues that will produce an outcome consistent with the disputes procedure contained in the Enterprise Agreement.

#### **5.3.3.2 Addressing Grievances Raised by Subcontractor Employees Wages and Employment Entitlements**

Fulton Hogan is liable, as a head contractor, for ensuring that its subcontractors are carrying out their duties and obligations as employers in a proper and lawful manner. To ensure that subcontractor employees are being paid their wages and employment entitlements in accordance with the applicable award/EA conditions and employment legislation, a Statutory Declaration shall be requested from each subcontractor on a monthly basis confirming that the subcontractor has paid all wages and entitlements due their employees. Refer to section 7.3 for further information on Statutory Declarations.

Typical entitlements list is given in section 9 of this Plan.

Regular third party Industrial Compliance audits should be conducted by a third party industrial agency, such as MBA NSW.

If the third party audits of the subcontractor establishes breach (or a suspected breach) of the applicable award (EA) conditions and/or employment entitlements; the Contract Manager shall follow up and ensure that the issue is satisfactorily resolved by the subcontractor to the satisfaction of the employees, and in accordance with the applicable employment legislation and award (EA) conditions.

Continuation of a breach will give rise to a need for elevation to the HR Manager who shall determine the most appropriate action.

Appropriate action shall include, as applicable, the following:

- Arranging a meeting with senior management representatives of the subcontractor to review and resolve the issue;
- Issuing a payment schedule in accordance with the provision of the Security of Payment Act for breaching a legislative requirement;
- Requesting assistance from representatives of employer organisations to resolve the issue; and
- Proceeding with subcontract termination for cause in accordance with the subcontract conditions, and (where necessary) advising the FWBC of the employment breaches that have been committed by the subcontractor.

#### **Other Grievances and Concerns**

Grievances reported to Fulton Hogan by subcontractor employees of workplace harassment involving bullying, racial/gender/religious discrimination, or other inappropriate actions shall be reported and acted upon as earlier described.

The resolution of any concerns must be managed in accordance with the disputes settlement procedure of the sub-contractors Enterprise Agreement.

#### **5.3.3.3 Addressing Safety Grievances Raised by Site Workforce**

Safety grievances are generally raised by the site construction workforce during their inspections and attendance of toolbox meetings. Toolbox meetings are attended by Fulton Hogan and subcontractor personnel, and are being used as a venue for:

- Raising the site workforces' safety and environmental awareness.
- Reporting unsafe work practices and issues of concern.

Safety grievances reported by the workforce during toolbox meetings, or at any other occasion, shall be promptly reviewed and effectively acted upon by Fulton Hogan's site staff in a manner that will prevent its recurrence.

Grievances related to unsafe work practices, or to breaches of safety regulations and site safety rules shall be immediately reported and acted upon through the Incident Reporting System, in accordance with the Project OHS Management Plan.

#### 5.3.4. Inclement Weather

Fulton Hogan operates under an Enterprise Agreement that incorporates the following inclement weather provisions:

- Flexibility to reassign employees to covered or more suitable work areas during inclement weather;
- Capacity to reassign personnel to more suitable work sites if the site conditions during and after the inclement weather period does not allow the assigned workforce to carry out their tasks in a safe and efficient manner;
- Authority to assign personnel to perform works during inclement weather if they are:
  - Carrying out works that are not affected by the inclement weather;
  - Plant operators who are working within enclosed cabins; and
  - Required to carry out rectification works needed to protect the works, or to establish improve or maintain various safety and environmental protection measures required on site.

Fulton Hogan also has site establishment procedures that incorporate the requirement for reviewing identifying planning and establishing various measures that can provide the workforce with a safe work environment during/ after inclement weather. Such measures include the following:

- Providing the site with an effective storm water surface drainage system that incorporates erosion and sedimentation control measures.
- Constructing temporary hard stand areas for car parking and pedestrians that can prevent or minimise muddy/unsafe site conditions.

During times of inclement weather any down time shall be considered an opportunity to conduct meaningful on-site training and refresher training to maintain and improve the skill set of the workforce.

#### 5.3.5 Threatened/Actual Industrial Actions

The Project Manager shall promptly contact and seek the assistance of the HR Manager whenever an industrial issue is raised that could lead to an industrial dispute on site.

The HR Manager shall provide the Project Manager with advice on the best course of action required to resolve the issue, and where appropriate shall contact the parties to the dispute and take command of the situation to ensure that the dispute is effectively resolved.

Where the dispute could not be promptly resolved, the HR Manager shall seek the assistance of the appropriate employer associations.

Also, where a subcontractor is a main party to the dispute, representatives from the subcontractors' employer association shall be requested to assist in resolving the dispute, as applicable.

All efforts and resources available to Fulton Hogan's HR Manager shall be used to resolve industrial disputes in an amicable and prompt manner. However, Fulton Hogan will not be a party to any dispute resolution agreement that infringes on its rights or on the rights of its subcontractors.

Determinations will be made so as to establish if the Industrial Action is deemed legitimate or not pursuant to the Fair Work Act, Chapter 3, Part 3-3 and Fulton Hogan will seek orders from Fair Work Australia to mitigate the effects of any action.

It will be necessary under these set of circumstances for the FWBC to be advised of the situation.

#### 5.3.6. Reporting Industrial Disputes to the Client

Fulton Hogan shall promptly provide the Client Representatives with details of expected industrial disputes or disagreements with representatives of an employee (union) organisation which is likely to impact on the construction program and/or on the project.

Industrial disputes and disagreements to be reported by Fulton Hogan shall include any serious safety, industrial, or employment issue of concern that will negatively impact on Fulton Hogan's business activities, and the activities of Fulton Hogan's subcontractors and suppliers who are involved in the construction works.

Information concerning an industrial dispute or disagreement will be forwarded to the Client's Representative through formal correspondence and/or will be a subject of discussion at site coordination meetings.

## 6. Implementation

### 6.1. General

Fulton Hogan's Management System Procedures shall be applied by Fulton Hogan to carry out the following:

- Plan, establish and implement the requirements of the integrated control plans, communications and contingency planning
- Distribute the latest data and information required by the workforce;
- Provide the workforce with the necessary training re consultation strategies;
- Identify, control and improve deficiencies noted in the Project Plan;
- Carry out internal audits to verify implementation and assess effectiveness of the IR Management Plan; and

## 6.2. Subcontractor Management

### 6.2.1. General

Fulton Hogan **Purchasing and Hiring Procedure** is written for identifying, selecting and controlling subcontractors who perform services needed by Fulton Hogan.

The selection process for subcontractors requires management to **review and verify** a range of issues such as the subcontractors' resources, capacity, capability and experience.

These **reviews** are aimed at ensuring that subcontractors are fully capable of carrying out their scope of work and contractual obligations in a safe legal and professional manner, and that the subcontractors have the experience and resources required to complete the works without causing an industrial **dispute**.

The **verification** process seeks to establish the performance of the prospective subcontractor in its contractual background, Industrial relations record, quality of workmanship, dependability and ability to complete works on schedule.

This process is further described in the **Quality Management Plan** under Purchasing and Control of Subcontracted Work Activities.

In addition, to ensure that prospective subcontractors are fully aware of Fulton Hogan's IR Management requirements, the following actions shall be implemented:

- Formations of contractual and legal obligations so as to achieve compliance with all applicable Statutory Safety, Environmental and Industrial Acts and Regulations;
- The documentation required from the subcontractor prior to commencing works on site:
  - Certificates of Currency for Workers Compensation insurance and other applicable insurance policies required including policies required from secondary sub-contractors.
  - Wages documentation to verify compliance with "Workplace arrangements/ Instruments".
  - Register of company employees incorporating details, as applicable, of their superannuation registration number, LSL number, etc in addition to the submission of documentation verifying up to date payment.
  - Safe Work Method Statements (SWMS) for the works required from the subcontractor, and other safety management planning documentation identified by Fulton Hogan at the pre-award meeting.
  - A copy of this documentation related to subcontractor's employee records is to be maintained on site, and that this documentation must be readily available for Fulton Hogan's review as evidence of subcontractor's compliance with statutory and project specific requirements.

A pre-award meeting facilitates confirmation that the subcontractor is clearly aware of the subcontract scope of work and Fulton Hogan's subcontract conditions.

As a condition of any subcontract agreement, all subcontractors will be subjected to IR audits on a randomly basis to ensure that they comply with their legal and statutory obligations of employment.

Issues of focus will include:

- Pay slip documentation;
- Legal and statutory obligations for employment;
- Award or agreement obligations;
- Rates of pay and conditions;
- Leave entitlements;
- Workers Compensation insurance;
- Long Service Leave; and
- Superannuation.

Only subcontractors who meet their legal and statutory obligations of employment will be engaged on the Project. Follow up compliance audits will be repeated to ensure all employers continue to maintain their legal obligations for employment conditions for the duration of the Project.

Compliance audits will be undertaken by Fulton Hogan's preferred third party auditor in New South Wales, the New South Wales Master Builder Association's Industrial Department.

The subcontractor's Industrial Relations Representative, Project Manager and Project Managers will be notified of the results of the auditing, with the Commercial Manager maintaining a register of the MBA audits.

#### **Secondary sub-contracting:**

Those companies determined to be specialist sub-contractors contracting to a company engaged by Fulton Hogan will have the following criteria assessed:

- The scope of works to be carried out by the proposed secondary sub-subcontractor.
- Documentation that must be provided by the secondary sub-subcontractor such as workers compensation policy, public liability, details of workplace arrangements, evidence of compliance to statutory and obligated workplace arrangements before approval is granted by Fulton Hogan to subcontract a portion of the works.
- The required documentation shall be listed in the applicable subcontractors' Pre-Award Meeting Record.
- When appropriate, the Project Manager or the Project Commercial Manager will nominate the secondary sub-contractor for inclusion in third party industrial audits.

## 6.2.2. Subcontractor Statutory Declarations

All subcontractors who are performing works at Fulton Hogan's work sites must submit a Statutory Declaration and Sub-Contractor Statement with each invoice confirming payment of all monies and entitlements due to workers, sub-subcontractors, and suppliers for works carried out on behalf of the subcontractor for the subject subcontract.

Project specific statutory declarations incorporating any conditions stipulated in the head contract documents in addition with Statutory prescribed requirements will be prepared for use on the Project.

## 6.2.3. Identifying and Controlling Unacceptable Industrial Practices by Subcontractors

There is a requirement for the sub-contractor to submit conformance/verification records to verify subcontractors' compliance with statutory, contractual, specified or planned requirements. Where the subcontractor has failed to implement and comply with requirements, Fulton Hogan shall issue the subcontractor with notices.

Fulton Hogan may elect to further audit subcontractors' employment/wages records etc., if there are indications or concerns that the subcontractor is applying unacceptable industrial work practices, or in the event that their grievances have been reported to Fulton Hogan by their workforce.

When members of Fulton Hogan's site management team are informed by members of the site construction workforce or develop an understanding that a subcontractor is engaging in unacceptable industrial practices, the Project Manager must promptly implement the following actions:

- Investigate and confirm if unacceptable industrial practices are being employed on site;
- Advise the HR Manager of the suspected practices;
- Arrange a meeting with senior representatives of the subcontractor to detail Fulton Hogan's concerns about such industrial practices;
- Request the subcontractor to comply with the applicable award conditions and employment entitlements;
- Advise the sub-contractor that a report of a suspect breach has been issued to the FWBC;
- Advise the subcontractor that a payment schedule as prescribed under the Security of Payment Act stipulating the breach will be issued and not withdrawn until the breach is fully resolved to Fulton Hogan's satisfaction;
- Advise the subcontractor of the consequences resultant from any industrial dispute; and
- Minutes of meeting shall be prepared by the Project Manager, and distributed to the attendees and other concerned parties including the client.

## 7. Measurement, Evaluation and Review

### 7.1. Maintenance and Storage of Industrial and Employment Records

Fulton Hogan's HR Manager is responsible for maintaining Fulton Hogan's IR records.



The Project Documents and Records Management Sub-Plan provides instructions and information detailing Fulton Hogan's requirements for collecting maintaining and storing Fulton Hogan's project/head office conformance and verification records.

Project conformance and verification records include various site specific documentation associated with the following project planning and control processes:

- Statutory and contractual requirements;
- Safety, environmental, industrial and quality management;
- Procurement and control of subcontracted activities;
- Head contract and various subcontract administration activities;
- Induction and training;
- Site coordination meeting minutes;
- OHS and Plant Inspections and checklists; and
- Documentation which is evidence of a sub-contractors compliance with Industrial Legislation.

## 7.2. Tracking Benefits and costs of IR Management Activities

The IR management activities can be monitored through the objectives and targets of IRP.

This process is further addressed under PMP.

## 7.3. Management Reviews

Management review meetings shall be carried out in accordance with the requirements set in the PMP.

The Project Manager is responsible for ensuring that management review meetings are arranged by Fulton Hogan to review and recommend solutions to Safety, industrial or employment issues of concern or grievances raised by the workforce or by other parties;

The Project Manager must ensure that toolbox meetings are arranged with the work force at weekly intervals and in accordance with the following requirements:

- Weekly toolbox meetings must be attended by all personnel on site;
- Details of the meeting agenda shall be coordinated with the OHS Representative and must address safety, industrial, environment employment or other related issues of concern or grievances raised by the workforce;
- Minutes of the toolbox meeting shall be communicated;
- Safety, industrial and employment related issues of concern raised by the workforce must be promptly reviewed, actioned and resolved. Details of proposed action shall be reported to the workforce at the next scheduled toolbox meeting; and
- Issues that could not be promptly resolved by the Project Manager shall be reported to Fulton Hogan's Senior Management through Fulton Hogan's monthly project reporting process. However, Fulton Hogan's HR Manager must be immediately advised of any serious industrial grievances raised by the workforce.

Communication processes with subcontractors will be established to achieve efficient communication through:

- Pre start meetings;
- Site meetings;
- OH&S Committee Meetings.

The HR Manager and the Project Manager will maintain open lines of communication with officials of the relevant industry unions to ensure that any employee grievances can be resolved in a prompt manner.

#### 7.4. Managing Non-Compliance

Sections 6 & 7 of the IRP pertain to the issues that may arise in Industrial Relations Management and the methods by which issues and emergent risks are to be managed.

The prompt elevation of concerns to Senior Management is an imperative; all other situations will be dealt with by exceptions reporting. Monthly reports will include hours worked and hours lost due to disputation and the number and reasons for Union visits.

Other non-compliances are managed in accordance to corrective actions that is addressed in QMP.

### 8. Employment

#### 8.1. Employment Conditions

##### 8.1.1. Acceptable Employment Conditions

All personnel employed by Fulton Hogan or its subcontractors at the work site must be remunerated for their labour and services in accordance with the following:

- Applicable Awards;
- Industrial and Employment Regulations; and
- The employer's enterprise or workplace agreement, where applicable.

##### 8.1.2. Over Award Payments

Fulton Hogan acknowledges that its subcontractors are free to provide (through enterprise agreements) wages and employment conditions to their employees that are superior to the applicable award rates and conditions, and employment entitlements.

Coercion of another party to make over-award payments is prohibited under the Code, as is the entering into any kind of arrangement which binds another party to make over-award payments.

Payments to industry superannuation, redundancy and sick leave funds which provide for contributions in excess of award and legislative requirements are matters to be decided by each employer.

### 8.1.3. Project Agreements and Site Allowances

Applications for Project Agreements and Site Allowances shall be dealt in accordance with the National Code of Practice for the Construction Industry.

An enterprise agreement is provided for under Federal jurisdiction through Parts 2-4 of the Fair Work Act.

It is normally expected that within the terms of an Enterprise Agreement that a "no extra claims" clause is included, rendering the agreement exhaustive of all terms and conditions of the employment relationship.

### 8.1.4. Enterprise Agreements

Fulton Hogan operates under an enterprise agreement which has been certified by the Australian Industrial Relations Commission. All wages personnel employed by Fulton Hogan are covered by this agreement.

Fulton Hogan recognises the importance of enterprise agreements to its clients as it provides them with a certain amount of stability and certainty.

Fulton Hogan also recognises that appropriately established enterprise agreements can provide financial benefits to all the concerned parties by gaining a competitive commercial advantage through flexible work arrangements and gaining efficiencies that will lead to increased productivity and reduce overall costs.

Fulton Hogan will comply with the code of conduct and refrain from directly or indirectly encouraging sub-contractors to adopt any particular form of industrial agreement.

## 8.2. Freedom of Association

Fulton Hogan shall ensure that construction work sites under its control will comply with the applicable awards or EBA conditions, employment and industrial acts and regulations.

Fulton Hogan will also ensure that all project stakeholders, including Fulton Hogan, subcontractors and representatives of the appropriate industrial unions, will observe/comply with the following:

- The applicable awards and EBA conditions;
- Employment and industrial legislation; and
- Right of entry for authorised officers including, where applicable, authorised union representatives.

Obligations under the Code and the Guidelines include the following prohibitions:

- providing the names of new staff, job applicants, contractors or subcontractors to unions other than as required by law;
- no ticket, no start signs or 'show card' days;
- using forms requiring the employee to identify their union status or employers

- and contractors to identify the union status of employees or subcontractors;
- the imposition, or attempted Imposition, of a requirement for any contractor, subcontractor or employer to employ a non-working shop award or Job delegate or to hire an individual nominated by a union;
  - any requirement that a person pay a 'bargaining fee' however described, to an Industrial association of which they are not a member, in respect of services provided by it.
  - discriminating against or disadvantaging elected employee representatives;
  - refusing to employ, or terminating an employee, because of their union status;
  - employers refusing a reasonable request from a workplace delegate to represent employees in relation to grievances and disputes or discussions with members.

### 8.3 Right of Entry

Fulton Hogan shall ensure that construction work sites under its control are managed to comply with the provisions provided in Chapter 3, part 3-4 of Fair Work Act that provides for the application of "Right of Entry".

It is an obligation of the Code to have a site management process in place to ensure that Fulton Hogan and their sub-contractors strictly comply with their right of entry requirements in accordance with the applicable legislation, court and tribunal orders, and Industrial Instruments. These rights of entry requirements include those applicable to workplace relations and OHS&R. These procedures govern access to employer and employee records and/or the holding of discussions with employees.

The Fair Work Act establishes the framework for officials of organisations to enter premises that balance the right of organisers to represent their members to hold discussions or investigate suspected contraventions of an industrial instrument or OHS law and the right of a business to operate without undue inconvenience.

The Act establishes:

- when a right (of entry) may be exercised;
- the conduct of entry permit holders;
- what notice has to be provided;
- the consequences of contravening entry permit conditions; and
- prohibitions

The flowcharts, position papers and training modules prepared to assist individuals in understanding their obligations are to be applied as operational models prescribing the required behaviour and protocols at Fulton Hogan sites.

### 8.4 Strike Pay

No payment shall be made to employees for time spent engaged in industrial action (as defined by Fair Work Act), unless payment is authorised or ordered by the Fair Work Ombudsman as Protected Action.

Under the Fair Work Act It is unlawful for:

- employers to pay;

- employees to accept or seek; or
- employee organisations to seek strike pay.

### 8.5. Protected Action

Industrial action (per Fair Work Act section 19) means action of any of the following kinds:

- the performance of work by an employee in a manner different from that in which it is customarily performed, or
- the adoption of a practice in relation to work by an employee, the result of which is a restriction or limitation on, or a delay in, the performance of the work;
- a ban, limitation or restriction on the performance of work by an employee or on the acceptance of or offering for work by an employee;
- a failure or refusal by employees to attend for work or a failure or refusal to perform any work at all by employees who attend for work;
- the lockout of employees from their employment by the employer of the employees

The action based on a reasonable concern of the employee about an imminent risk to OHS is not considered to be industrial action.

Project Industrial Action (FW Act Section 408) is defined as:

- employee **claim action** for the agreement. Action which is supporting or advancing claims in relation to an agreement that are **permitted matters** (section 409 defines permitted matters in relation to the requirements of a ballot, must not be action for claims that contain unlawful terms in the agreement, that the bargaining agent (union) must not be engaged in Pattern Bargaining, the action must not relate to demarcation disputes);
- employee **response action** for the agreement (see section 410 defines the response in particular relation to the action of the employer, must be employees associated with the proposed agreement, is not over demarcation).
- employer response action for the agreement that does not affect the continuity of the employees employment, relates to the employees and employer that the proposed agreement will cover.
- Additionally the action must have common requirements, namely:
  - Must not relate to greenfields or multi-enterprise agreement
  - A genuine attempt to reach an agreement
  - Must fulfil the notice requirements (minimum of 3 days, in writing and after a ballot)
- **Pattern bargaining** is a course of conduct if a bargaining representative (union) is seeking common terms across 2 or more agreements and is not taking into account the individual circumstances of each employer.
- Industrial action must not be organised or engaged in before the nominal expiry date of an enterprise agreement. Any industrial action that is taken which is not “protected Action” is contrary to Law.

## 8.6. Unfair Dismissal

A person is protected from unfair dismissal at a time if, at that time:

- the person is an employee who has completed a period of employment with his or her employer of at least 6 months or for a small business 1 year; and
- one or more of the following apply:
  - a modern award covers the person;
  - an enterprise agreement applies to the person in relation to the employment;
  - the sum of the person's annual rate of earnings, and such other amounts (if any) worked out in relation to the person in accordance with the regulations, is less than the high income threshold.
- The terms of Enterprise Agreements in relation to disciplinary procedures, redundancy and consultation must be complied with. In addition to those enterprise related terms the following matters from the Fair Work Act apply:
  - A person has been unfairly dismissed if Fair Work Act is satisfied that:
    - the person has been dismissed;
    - the dismissal was harsh, unjust or unreasonable;
    - the dismissal was not consistent with the Small Business Fair Dismissal Code; and
    - the dismissal was not a case of genuine redundancy

In considering whether it is satisfied that a dismissal was harsh, unjust or unreasonable, Fair Work Act must take into account:

- whether there was a valid reason for the dismissal related to the person's capacity or conduct (including its effect on the safety and welfare of other employees);
- whether the person was notified of that reason;
- whether the person was given an opportunity to respond to any reason related to the capacity or conduct of the person;
- any unreasonable refusal by the employer to allow the person to have a support person present to assist at any discussions relating to dismissal;
- if the dismissal related to unsatisfactory performance by the person—whether the person had been warned about that unsatisfactory performance before the dismissal;
- the degree to which the size of the employer's enterprise would be likely to impact on the procedures followed in effecting the dismissal;
- the degree to which the absence of dedicated human resource management specialists or expertise in the enterprise would be likely to impact on the procedures followed in effecting the dismissal;
- Remedies including re-instatement and compensation are available in cases where unfair dismissal is confirmed; and
- Unlawful dismissal occurs when a dismissal is contrary to law and initiated on unlawful acts such as discrimination based on race, gender, religion, age or disabilities.

## 9. Related Legislations/Codes of Practice/Awards

The following obligations relating to industrial relations and employment may be relevant to the Project:

### Federal

- Fair Work Act (2009)
- Superannuation Guarantee Act 1992
- Building Construction Industry Improvement Act 2005
- Privacy Act 1988
- Sex Discrimination Act 1984
- Disability Discrimination Act 1992
- Racial Discrimination Act 1975

### Awards and Agreements

- Modern Awards – Building and Construction General On-Site Award
- Manufacturing and Associated Industries and Occupations Award 2010
- Mobile Crane Hiring Award 2010
- Plumbing and Fire sprinklers Award 2010
- Professional Employees Award 2010
- Road Transport and Distribution Award 2010
- Surveying Award 2010
- Agreements – Fulton Hogan Pty Ltd (Civil Projects NSW)/AWU/CFMEU Enterprise Agreement 2009 – 2010

## 10. Applicable Forms and Procedures

- Subcontractor Employee IR Data Register
- Fulton Hogan NSW Civil Projects Enterprise Agreement
- Request for Quotation
- HR Manual (inclusive of all corporate HR Forms and referenced documents)
- Fulton Hogan Code of Conduct
- Information Sheet: Union Right of Entry
- Information Sheet: Code of Practice
- Information Sheet: Fair Work Inspectorate
- Information Sheet: Freedom of Association
- Union Right of Entry Flow Chart
- Prescribed Form for Notice of Entry
- Project level Duties and Responsibilities Matrix
- Consultative Committee Constitution (Enterprise Agreement Level)

## 11. Appendices

Appendix A – Line Managers Handbook for Right of Entry

**Appendix W - Exhibit C Part 2 to the Upgrade Project Deed**

**Exhibit C Part 2**







**Appendix X - Exhibit E to the Upgrade Project Deed**

**Exhibit E Site Access Schedule**

**Appendix X - Exhibit E to the Upgrade Project Deed**

**Exhibit E Site Access Schedule**

Exhibit E to the Upgrade Project Deed is amended by:

- (a) inserting the following rows at the end of Part I(a) of the Site Access Schedule:

Plan - M2UPGRADE_MOTSITE_9					
	Lot	DP	F/I	Lane Cove Road eastbound on-ramp	Motorway Road Works
1	Lot 14	DP 883750	F/I 14/883750		-

- (b) inserting the following rows at the end of Part I(b) of the Site Access Schedule;

Plan - M2UPGRADE_LOCALRDS_8					
	Lot	DP	F/I	Land Cove Road southbound carriageway	Local Road Works
1	Lot 19	DP 883750	F/I 19/883750		Local Road Works
2	Part Lot 24	DP 883750	F/I 24/883750		Local Road Works

- (c) inserting the following row at the end of Part A of Attachment 1 to Exhibit E:

M2UPGRADE_MOTSITE_9	20 April 2012
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- (d) inserting the following row at the end of Part B of Attachment 1 to Exhibit E:

M2UPGRADE_LOCALRDS_8	10 May 2012
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- (e) inserting the following row at the end of Part D of Attachment 1 to Exhibit E:

Subject to SWTC Clause 4.3(a) & Appendix 17  
 Access is limited to the area shown on RMS Sketch Plan SR 445 and subject to SWTC Clause 4.3(a) & Appendix 17

SR 445	31 May 2012
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(f) inserting the following row at the end of Part E of Attachment I to Exhibit E:

DP 883750	15 March 1999
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(g) inserting the following plans at the end of Exhibit E:

Dated: 20/4/2012



# PLAN

SHOWING LAND REQUIRED FOR PROPOSED M2 UPGRADE  
PERMANENT MOTORWAY REQUIREMENT LANE COVE ROAD, MACQUARIE PARK



NOTE: Positions of boundaries in relation to Motorway site boundaries are subject to final survey



PROPOSED NEW MOTORWAY BOUNDARIES

EXISTING MOTORWAY BOUNDARIES

LAND OWNED BY RMS REQUIRED FOR PERMANENT MOTORWAY

Dated: 10/5/2012

# PLAN

SHOWING LAND REQUIRED FOR PROPOSED M2 UPGRADE  
LOCAL ROAD WORKS REQUIREMENT LANE COVE ROAD, MACQUARIE PARK



NOTE: Positions of boundaries in relation to Motorway site boundaries are subject to final survey



-  PROPOSED NEW MOTORWAY BOUNDARY
-  PROPOSED NEW ROAD BOUNDARY
-  EXISTING MOTORWAY BOUNDARIES
-  RMS OWNED LAND REQUIRED FOR LOCAL ROAD WORKS

**PLAN**  
**SHOWING LAND REQUIRED FOR PROPOSED**  
**M2 UPGRADE AT MACQUARIE PARK**

**Reduction Ratio** 1:2000  
 Lengths are in metres

**ROADS & MARITIME SERVICES**  
**INFRASTRUCTURE DEVELOPMENT**

**LGA:** RYDE  
**Parish:** HUNTERS HILL  
**Locality:** MACQUARIE PARK  
**County:** CUMBERLAND

**SKETCH**

**SR 445**

**DRAWN** 31/05/2012

- PROPOSED NEW ROAD BOUNDARY
- PROPOSED MOTORWAY BOUNDARY
- EXISTING MOTORWAY BOUNDARIES
- RMS OWNED LAND REQUIRED FOR LOCAL ROAD WORKS



Dimensions and positions of improvements in relation to the boundaries are subject to final survey  
 Offsets are 90° to property boundaries

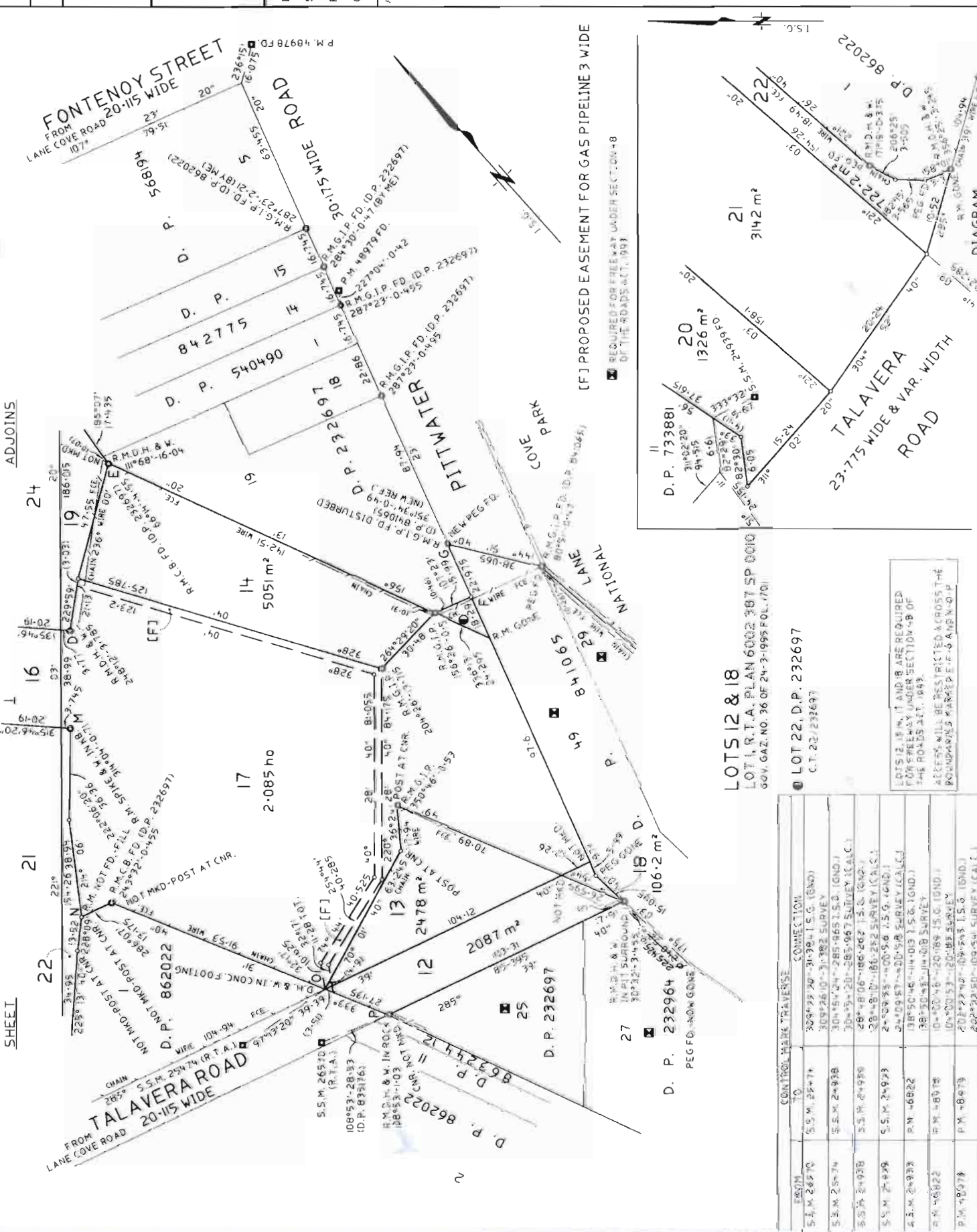






DP 883750  
 Registered 19.3.1999  
 Signature: *Kang*  
 Surveyor/registered under Surveyors Act 1999  
 This is sheet of the plan of sheets covered by Subdivision Certificate No. of  
 Authorised Person/General Manager/Accredited Certificate holder's name is imprimable

L.G.A.: RYDE CITY  
 Suburb: NORTH RYDE  
 Parish: HUNTERS HILL  
 County: CUMBERLAND  
 For use where space is insufficient to refer to Page Form 2  
 LOTS 12 AND 18 ARE TO BE DISPOSED OF TO THE OWNERS OF THE ADJOINING LAND  
 Length of a line: 4.49  
 Unit: Ratio: 1:1000



[F] PROPOSED EASEMENT FOR GAS PIPELINE 3 WIDE  
 REQUIRED FOR FREEWAY UNDER SECTION 48 OF THE ROADS ACT 1993

LOTS 12 & 18  
 LOT 1, R.T.A. PLAN 6002 387 SP 000  
 GOV. GAZ. NO. 36 OF 24-3-1995 VOL. 170

LOT 22, D.P. 232697  
 C.T. 22/232697

LOTS 12, 18 AND 18 ARE REQUIRED FOR FREEWAY UNDER SECTION 48 OF THE ROADS ACT 1993. ACCESS WILL BE RESTRICTED ACROSS THE BOUNDARIES MARKED E & B AND N-O-P

FROM	TO	CONTROL MARK TRAVERSE CONNECTION
S.S.M. 26570	S.S.M. 26574	308°53'20"-311°39'41" I.S.G. (GND)
S.S.M. 26574	S.S.M. 26578	308°26'10"-311°39'22" SURVEY
S.S.M. 26578	S.S.M. 26582	304°54'24"-285°46'51" I.S.G. (GND)
S.S.M. 26582	S.S.M. 26586	304°54'24"-285°46'51" SURVEY (CALC)
S.S.M. 26586	S.S.M. 26590	284°48'06"-188°26'27" I.S.G. (GND)
S.S.M. 26590	S.S.M. 26594	284°48'06"-188°26'27" SURVEY (CALC)
S.S.M. 26594	S.S.M. 26598	24°09'58"-400°56'11" I.S.G. (GND)
S.S.M. 26598	S.S.M. 26602	24°09'58"-400°56'11" SURVEY (CALC)
S.S.M. 26602	S.S.M. 26606	138°50'46"-114°03'11" I.S.G. (GND)
S.S.M. 26606	S.S.M. 26610	138°50'46"-114°03'11" SURVEY
S.S.M. 26610	S.S.M. 26614	10°-00'46"-20°18'9" I.S.G. (GND)
S.S.M. 26614	S.S.M. 26618	10°-00'46"-20°18'9" SURVEY
S.S.M. 26618	S.S.M. 26622	20°22'40"-104°54'31" I.S.G. (GND)
S.S.M. 26622	S.S.M. 26626	20°22'40"-104°54'31" SURVEY (CALC)
S.S.M. 26626	S.S.M. 26630	222°24'15"-284°56'6" I.S.G. (GND)
S.S.M. 26630	S.S.M. 26634	222°24'15"-284°56'6" SURVEY (CALC)

## Schedule 2 Amendments upon the Second Effective Date

With effect from the Second Effective Date:

1. Clause 8.2(c) of the M2 Motorway Project Deed is deleted and replaced with the following clause:

*"(c) the parties acknowledge and agree that the operation, maintenance and repair manual referred to in clause 8.2(a) will, from each of the date of M2 Upgrade Final Completion and the date of M2 Upgrade Construction Completion of Stage 4A, be deemed to include the Maintenance Manual (as defined in and approved for the purposes of the M2 Upgrade Project Deed).";*

2. Clause 9.2(b) of the M2 Motorway Project Deed is deleted and replaced with the following clause:

*"(b) If a report referred to in clause 9.2(a) is submitted to RMS during the 6 month period immediately following the M2 Upgrade Date of Final Completion or the M2 Upgrade Date of Construction Completion of Stage 4A, the report must include details of all maintenance and repairs carried out on that part of the M2 Motorway that comprises the M2 Upgrade between the M2 Upgrade Date of Final Completion or the M2 Upgrade Date of Construction Completion of Stage 4A (as relevant) and the date of the report.";*

3. Schedule 2 to the M2 Motorway Project Deed is deleted and replaced with a new schedule in the form attached as Appendix A to this Schedule 2; and

4. Exhibit K to the M2 Motorway Project Deed will be amended by:

- (a) inserting a new section 1.1.2(c) after section 1.1.2(b) as follows:

*"(c) the additional elements designed and constructed as part of the Lane Cove Road On Ramp Project in accordance with the agreement dated on or about May 2013 (the LCROR Project).*

*The scope of the LCROR Project is:*

- (i) *Lane Cove Road East Facing On-Ramp; and*
- (ii) *Eastbound widening (Lane Cove Road to Delhi Road).";*

- (b) deleting the table at section 1.1.2(a) and replacing it with the following table:

	Number of lanes
EASTBOUND	
Old Windsor Road (Ch 0) to Windsor Road east facing On Ramp (Ch 4350)	2
East facing On Ramp Windsor Road (Ch 4350) to west facing Off Ramp Pennant Hills Road (Ch 7800)	3
Pennant Hills Road Intersection (Ch 7800 to Ch 9600)	2
East facing On Ramp Pennant Hills Road (Ch 9600) to Lane Cove Road Off Ramp (Ch 17100)	3

Lane Cove Road Intersection (Ch 17100) to Ch 17990	2
Lane Cove Road On Ramp (Ch 17990) to Delhi Road Off Ramp (Ch 18470)	3
Delhi Road Off Ramp (Ch 18470) to End of M2 (Ch 20240)	2
WESTBOUND	
Old Windsor Road (Ch 0) to Pennant Hills Road east facing Off Ramp (Ch 9600)	2
East facing Off Ramp Pennant Hills Road (Ch 9600) to Lane Cove Road Loop On Ramp (Ch 17600)	3
Lane Cove Road Loop On Ramp (Ch 17600) to End of M2 (Ch 20240)	2

(c) deleting section 1.2(c)(xi) and replacing it with the following section:

**"(xi) Interchange with Lane Cove Road (west facing ramps, east-facing eastbound on ramp and loop ramp)**

*The roadworks extend generally to Talavera Road to the south and Fontenoy Road to the north. The roadworks include adjustments required to local roads intersecting with Lane Cove Road within the limits of the works."*

(d) deleting section 1.2(k) and replacing it with the following section:

**"(k) Service adjustments**

*(i) Liaise with all relevant Services authorities for the protection and relocation of any Services required as a result of the construction of the M2 Motorway, the M2 Upgrade and the LCROR Project.*

*(ii) Services affected by the construction of the M2 Motorway, the M2 Upgrade and the LCROR Project must be adjusted as required by the respective Services authorities.*

*(iii) Services transmissions may not be located along the M2 Motorway without the written approval of RMS."*

(e) deleting section 1.2(q) and replacing it with the following section:

**"(q) Access for pedestrians and vehicles**

*Adequate and safe access for vehicle and pedestrian traffic must be provided at all times during the construction and maintenance of the M2 Motorway, the M2 Upgrade and the LCROR Project unless agreed with RMS.*

*Throughout construction of the M2 Motorway, the M2 Upgrade and the LCROR Project, pedestrian, emergency vehicle and vehicle access must be maintained at all locations where access is to be provided by the completed works. Access must be maintained for residents to properties and vehicle access can be only temporarily prevented after liaison with the resident and the provision of reasonable notice unless agreed with RMS.*

*Provision must be made for traffic to continue to use Junction Road, Murray Farm Road and Sutherland Road during the construction of the M2 Motorway, the M2 Upgrade and the LCROR Project unless otherwise agreed with the relevant Authorities."*

- (f) deleting section 1.2(x) and replacing it with the following section:

**"(x) Open drains, channels, drainage basins and related watercourses**

*Open drains, channels, drainage basins and related watercourses constructed or altered as part of the Project, the M2 Upgrade or the LCROR Project must in conjunction with pipework and culverts form a complete system for carrying water through and away from the M2 Motorway and must comply with the reasonable requirements of the Authorities. The drains, channels, drainage basins and related watercourses must be constructed to satisfy their design capacity at all times and must provide for the control of vegetation, the retention and removal of silt, erosion and scour protection and the retention of floodwater. Relevant provisions of the Clean Waters Act 1970 apply for all discharge."*

- (g) deleting section 2.1 and replacing it with the following section:

**"2.1 Compliance**

*These technical criteria, where applicable, must be used in carrying out the design of the M2 Motorway. Technical criteria for the design of the M2 Upgrade works and the LCROR Project are included in the M2 Upgrade Scope of Works and Technical Criteria."*

- (h) deleting the first two paragraphs of section 2.5(a) and replacing them with the following paragraphs:

*"Except as otherwise specified, the design, construction, operation and maintenance of the M2 Motorway, the M2 Upgrade and the LCROR Project and the design and construction of all associated works must comply with the relevant Australian Standards.*

*All roadworks and structures design must conform to the relevant RMS publications (MR Form Series) and AUSTRROADS (and NAASRA Guidelines), as compiled in, and referred to 1, Road Design Reference Documents (RMS 1989) for the initial construction of the M2 Motorway and the M2 Upgrade SWTC for the M2 Upgrade and the LCROR Project unless otherwise noted in these criteria."*

- (i) deleting section 2.5(b)(i) and replacing it with the following section:

**"(i) Reference to standards or specifications, including RMS specifications or specifications for the design and construction of:**

- A. *the M2 Motorway, means the latest edition of those standards or specifications available in December 1993; and*
- B. *the M2 Upgrade and the LCROR Project means the standards and specifications set out in the M2 Upgrade SWTC."*

- (j) deleting section 2.5(d)(i) and replacing it with the following section:
- "(i) *All necessary surveys for the design, construction, operation and maintenance of the M2 Motorway, the M2 Upgrade and the LCROR Project must be undertaken. All survey levels must refer to Australian Height Datum (AHD). All survey plan co-ordinates must refer to the Integrated Survey Grid for the M2 Motorway or Main Grid Australia for the M2 Upgrade and LCROR Project works.*";
- (k) deleting section 4.1(a) and replacing it with the following section:
- "(a) *Construction methods, materials and workmanship must comply with the accepted standards specified by current Australian Standards and the RMS Technical Specifications available in December 1993 for the initial construction of the M2 Motorway, October 2010 for the M2 Upgrade works and May 2013 for the LCROR Project.*";
- (l) deleting section 4.1(c) and replacing it with the following section:
- "(c) *The M2 Upgrade and the LCROR Project may re-use materials from the M2 Motorway which must comply with the requirements of clause 4.1(a).*";
- (m) deleting section 4.2(a) and replacing it with the following section:
- "(a) *A quality assurance system for construction must be instituted in accordance with Category B, Australian Standard AS2990-1987 or the AS 3900 series Quality Systems for Engineering & Construction Projects. The M2 Upgrade works and the LCROR Project will be in accordance with ISO 1900.*";
- (n) deleting section 5.2 and replacing it with the following section:
- "5.2 Roadway areas to be maintained**
- The M2 Motorway must be maintained in accordance with the maintenance manual or otherwise as may be agreed with RMS between 270m west of Lane Cove River Bridge on Epping Road and the kerb line on the east side of Old Windsor Road at West Baulkham Hills, including all work done as part of the construction and operation of the M2 Motorway, the M2 Upgrade and the LCROR Project except for the local roads and traffic signals.*
- Structures constructed as part of the works to carry local roads or pedestrians over the M2 Motorway must be maintained, The roadways over those structures will be maintained by others.*"; and
- (o) deleting section 5.3 and replacing it with the following section:
- "5.3 Drainage basins and related watercourses**
- Drainage basins and related watercourses constructed or altered as part of the Project, the M2 Upgrade and the LCROR Project must be maintained to ensure that their design capacity is provide at all times. The maintenance includes the control of vegetation, the removal of silt, the repair of scour protection, the clearing of debris and the repair of erosion in accordance with the Environmental Management Plan. The maintenance also includes any*

*modifications or improvements required to ensure that the basins and watercourses function properly."*

## Schedule 2 Toll Calculation Schedule

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### 1. Definitions

**Administrative Charge** means a fee for administering the use of the M2 Motorway by Casual Users, as determined in accordance with clause 8 of this Schedule.

**Casual User** means a user of the M2 Motorway who fails to pay for that use by means of a Tag.

**Casual User System** means the system and equipment used to manage, process and administer revenue collection from Casual Users including office premises and fitout, hardware, software and office systems.

**Cars** are vehicles:

- (a) 2.8 metres or less in height; and
- (b) 12.5 metres or less in length.

**Charge Toll** is the toll the Company charges M2 Motorway users.

**New Ramp Toll Plaza** means a toll plaza located at the Herring Road ramp, the Christie Road ramp, the Windsor Road ramp and the Lane Cove Road ramp.

**Pennant Hills Road Uplift Date** means the later to occur of:

- (c) 1 January 2013; and
- (d) the date on which all M2 Upgrade carriageway works located to the west of Pennant Hills Road are complete and open to traffic.

**Tag** means an electronic device provided by a tollroad operator to a user of a tollroad to enable the user to pay tolls on tollroads (including the M2 Motorway) by means of an electronic collection system.

**Theoretical Toll** is the amount calculated in accordance with clause 2.2 of this Schedule.

**Uplift Date** means a date on which the Company is entitled to adjust a Base Toll and a Theoretical Toll in accordance with clause 2.2A or 2.2B of this Schedule.

**Video Enforcement System** means a system which enables, by means of photographic images or such other means as agreed between RTA and the Company, the processing of Casual Users.

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### 2. Theoretical Toll

2.1 Subject to clause 5.3, the Company may review the Theoretical Tolls for Cars and vehicles other than Cars each quarter in accordance with this Schedule.

2.2 The Theoretical Tolls for a particular quarter must be calculated in accordance with the following formulae:

- (a) in the case of toll plazas which are not New Ramp Toll Plazas:



**Theoretical Toll = Base Toll x Index n**

where:

Base Toll (until 31 December 2000)	=	for Cars: \$2.00 at the main toll plaza and \$1.00 at the Pennant Hills Road Toll Plaza; for vehicles other than Cars: \$5.00 at the main toll plaza and \$2.50 at the Pennant Hills Road toll plaza.
Base Toll (on and after 1 January 2001)	=	for Cars: \$2.20 at the main toll plaza and \$1.10 at the Pennant Hills Road toll plaza.
Base Toll (on and after 1 January 2001 and up to and including 31 March 2009)	=	for vehicles other than Cars: \$5.50 at the main toll plaza and \$2.75 at the Pennant Hills Road toll plaza.
Base Toll (on and after 1 April 2009)	=	for vehicles other than Cars: \$6.60 at the main toll plaza and \$3.30 at the Pennant Hills Road toll plaza.

The Base Toll is exclusive of GST.

Index (31 December 1993) = 1.0000

n = quarter n

$Index_n = Index_{n-1} \times Growth_n$

$Growth_n = \text{the greater of } 1.01 \text{ and } CPI(n-2)/CPI(n-3)$

(b) In the case of New Ramp Toll Plazas:

**Theoretical Toll = Base Toll x Index n**

where:

Base Toll (on and after 1 October 2009) – new ramps only	=	for Cars: \$1.92 at the Herring Road ramp toll plaza, \$1.92 at the Christie Road ramp toll plaza, \$1.36 at the Windsor Road ramp toll plaza and \$1.27 at the Lane Cove Road ramp toll plaza; and for vehicles other than Cars: \$5.76 at the Herring Road ramp toll plaza, \$5.76 at the
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		Christie Road ramp toll plaza, \$4.08 at the Windsor Road ramp toll plaza and \$3.81 at the Lane Cove Road ramp toll plaza.
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The Base Toll is exclusive of GST.

Index (30 June 2007) = 1.0000

n = quarter n

$Index_n = Index_{n-1} \times Growth_n$

$Growth_n = \text{the greater of } 1.01 \text{ and } CPI(n-2)/CPI(n-3)$

2.2A On and from the later to occur of:

- (c) the M2 Upgrade Date of Construction Completion of Stage 1;
- (d) the M2 Upgrade Date of Construction Completion of Stage 2; and
- (e) the M2 Upgrade Date of Construction Completion of Stage 3,

the Company may adjust the Base Toll for all vehicles (including Cars) by applying an 8.0% increase (and adjust the Theoretical Toll accordingly). This clause 2.2A does not apply to a Base Toll or Theoretical Toll applicable to the Lane Cove Road ramp toll plaza.

2.2B On and from the later to occur of:

- (f) the M2 Upgrade Date of Construction Completion of Stage 1;
- (g) the M2 Upgrade Date of Construction Completion of Stage 2;
- (h) the M2 Upgrade Date of Construction Completion of Stage 3; and
- (i) the M2 Upgrade Date of Construction Completion of Stage 3A,

the Company may adjust the Base Toll for the Lane Cove Road ramp toll plaza for all vehicles (including Cars) by applying an 8.0% increase (and adjust the Theoretical Toll for the Lane Cove Road ramp toll plaza accordingly).

2.3 The Theoretical Toll must be rounded to the nearest two decimal places.

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### **3. Charge Toll for Cars at the main toll plaza from M2 Motorway Commencement Date until 31 December 2000**

From the M2 Motorway Commencement Date until 31 December 2000, the Company may levy a maximum Charge Toll of \$2.50 for Cars at the main toll plaza.

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### **4. Charge Toll**

4.1 Subject to clauses 4.4, 4.5 and 5.3 of this Schedule, the Company may levy a Charge Toll which does not exceed the maximum Charge Toll, determined in accordance with this clause 4 of this Schedule.

4.2 Subject to clause 4.3, the maximum Charge Toll at a toll plaza is as set out below:

Main Toll Plaza (until the Uplift Date)	=	for Cars: \$4.95 (inclusive of GST)  for vehicles other than Cars: the relevant toll (determined in accordance with clause 4.3) plus GST
Pennant Hills Road toll Plaza (until the Pennant Hills Road Uplift Date)	=	for Cars: \$2.75 (inclusive of GST)  for vehicles other than Cars: the relevant toll (determined in accordance with clause 4.3) plus GST
Main Toll Plaza (on and from the Uplift Date)	=	for Cars: the greater of \$6.05 (inclusive of GST) and the Theoretical Toll for Cars plus GST  for vehicles other than Cars: the greater of \$18.15 (inclusive of GST) and the relevant Theoretical Toll plus GST
Pennant Hills Road toll Plaza (on and from the Pennant Hills Road Uplift Date)	=	for Cars: the greater of \$3.15 (inclusive of GST) and the Theoretical Toll for Cars plus GST  for vehicles other than Cars: the greater of \$9.45 (inclusive of GST) and the relevant Theoretical Toll plus GST
and is otherwise the Theoretical Toll for a toll plaza rounded to the nearest cent.		

4.3 In respect of vehicles other than Cars and only until the Uplift Date (in respect of the Main Toll Plaza) and the Pennant Hills Road Uplift Date (in respect of the Pennant Hills Road toll Plaza), the maximum Charge Toll (exclusive of GST) at a toll plaza is:

- (a) if the decimal places of the Theoretical Toll are within the range of .00 to .24, the integer of the Theoretical Toll;
- (b) if the decimal places of the Theoretical Toll are within the range of .25 to .74, the integer of the Theoretical Toll plus \$0.50; or
- (c) if the decimal places of the Theoretical Toll are within the range of .75 to .99, the integer of the Theoretical Toll plus \$1.00.

4.4 The Company must not levy a Charge Toll at:

- (d) the Windsor Road ramp toll plaza until the M2 Upgrade Date of Construction Completion of Stage 1 or such earlier time as RTA may agree, considering the extent to which the interchange complies with the safety and functionality requirements of the M2 Motorway Upgrade Project Deed;
- (e) the Herring Road ramp toll plaza until the M2 Upgrade Date of Construction Completion of Stage 2;
- (f) the Christie Road ramp toll plaza until the M2 Upgrade Date of Construction Completion of Stage 2; and
- (g) the Lane Cove Road ramp toll plaza until the M2 Upgrade Date of Construction Completion of Stage 3A.

4.5 The Company may levy a Charge Toll:

- (h) at the Windsor Road ramp toll plaza immediately from midnight on the M2 Upgrade Date of Construction Completion of Stage 1 or such earlier time as RTA may agree, considering the extent to which the interchange complies with the safety and functionality requirements of the M2 Motorway Upgrade Project Deed;
- (i) at the Herring Road ramp toll plaza immediately from midnight on the M2 Upgrade Date of Construction Completion of Stage 2;
- (j) at the Christie Road ramp toll plaza immediately from midnight on the M2 Upgrade Date of Construction Completion of Stage 2; and
- (k) at the Lane Cove Road ramp toll plaza immediately from midnight on the M2 Upgrade Date of Construction Completion of Stage 3A.

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## **5. Changes to the Charge Toll**

- 5.1 Subject to clause 5.3, if the Company wishes to change the Charge Toll, it must give the RTA at least four weeks' prior written notice of the proposed change.
- 5.2 Subject to clause 5.3 of this Schedule, the Company may charge a new Charge Toll calculated in accordance with this Schedule from midnight on the first day of the quarter for which the Theoretical Toll was reviewed (that is, 1 April, 1 July, 1 October or 1 January).
- 5.3 The Company may charge any Charge Tolls which have increased on an Uplift Date or the Pennant Hills Road Uplift Date (as applicable) in accordance with this Schedule immediately from midnight on that Uplift Date or the Pennant Hills Road Uplift Date (as applicable).

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## **6. Change to Theoretical Toll for vehicles other than Cars**

- 6.1 Subject to clause 6.2, the Company may increase the Base Toll for vehicles other than Cars to three times the Base Toll for Cars.
- 6.2 If the Company wishes to increase the Base Toll for vehicles other than Cars as contemplated by clause 6.1 of this Schedule, the Company must:
  - (a) give the RTA 30 days' prior written notice; and

- (b) enter into good faith negotiations with the RTA on the basis that:
  - (i) the change in the Base Toll may only be made if the RTA is reasonably satisfied that the purpose and effect of the change is to enhance Project revenue and not diminish use of the M2 Motorway by vehicles other than Cars; and
  - (ii) appropriate changes to the this Schedule must be agreed.

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## **7. Exercise of the Company's right to change the Theoretical Toll for vehicles other than Cars**

The parties agree that:

- (a) in accordance with its rights under clause 6.1 of this Schedule, on 18 August 2008 the Company gave RTA notice that it intended to increase the Base Toll for vehicles other than Cars;
- (b) on 5 March 2009 the RTA confirmed that it was reasonably satisfied that the purpose and effect of the change was to enhance the Project revenue and not to diminish use of the M2 Motorway by vehicles other than Cars; and
- (c) the increase to the Charge Toll arising out of the Company's exercise of its rights under clause 6.1 of this Schedule must be implemented progressively as agreed with the RTA.

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## **8. Administration Charge for Casual Users**

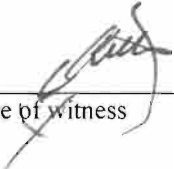
- (a) The Company must give Casual Users that use the M2 Motorway an opportunity or opportunities to pay the Charge Toll as a deferred toll consistent with the procedures adopted by other private tollway operators from time to time.
- (b) RTA consents to the Company levying an Administrative Charge for providing a temporary tag or allowing a Casual User to pay the Charge Toll as a deferred toll.
- (c) The Administrative Charge will be as reasonably determined by the Company in consultation with RTA having regard to:
  - (i) different Casual User products that the Company may wish to implement from time to time;
  - (ii) the actual and anticipated number of Casual Users;
  - (iii) the anticipated recovery rate of Charge Tolls and Administration Charges payable by Casual Users in comparison to Charge Tolls actually received from Casual Users; and
  - (iv) the objective of encouraging vehicles to have a Tag,

and so as to enable the recovery of the actual direct and indirect costs of operating and maintaining the Casual User System and processing, administering and collecting revenue from Casual Users, including all costs associated with:

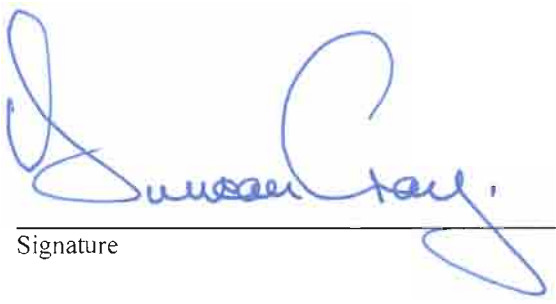
- (v) operation of the Video Enforcement System;
  - (vi) data maintenance and reconciliation;
  - (vii) administration and operation of the call centre, internet website and other systems established for Casual Users to contact the Company;
  - (viii) communications, postage and stationary;
  - (ix) maintenance, repair, refurbishment and replacement of the Casual User System;
  - (x) provision for bad and doubtful debts; and
  - (xi) any other unrecoverable costs associated with Casual Users.
- (d) The Company must give Casual Users prior notice of the amount of the Administration Charge.
- (e) The Company may review the Administration Charge from time to time. If the Company wishes to change the Administration Charge, the Company must provide RTA with written notice of:
- (i) the new Administration Charge and provide in reasonable detail supporting information for the basis of calculating the new Administration Charge having regard to the principles outlined in clause 8(c) of this Schedule; and
  - (ii) the date on which the Company proposes to commence charging the new Administration Charge at least 30 Business Days prior to such date.

Executed as a deed.

Signed, sealed and delivered by The Honourable Minister for Roads and Ports for and on behalf of Her Majesty Queen Elizabeth the Second in right of the State of New South Wales in the presence of:

  
\_\_\_\_\_  
Signature of witness

GREG BUTLER  
\_\_\_\_\_  
Full name of witness

  
\_\_\_\_\_  
Signature

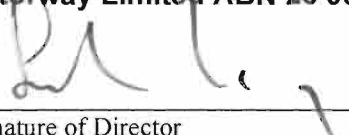
The Seal of Roads and Maritime Services was hereto affixed by:

PETER DUNCAN  
\_\_\_\_\_  
being an authorised signatory:

  
\_\_\_\_\_  
Signature



Signed, sealed and delivered by The Hills Motorway Limited ABN 28 062 329 828 by:

  
\_\_\_\_\_  
Signature of Director

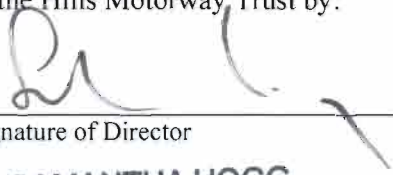
SAMANTHA HOGG  
\_\_\_\_\_  
Name of Director in full

  
\_\_\_\_\_  
Signature of Director/Secretary

JULIE GALLIGAN

\_\_\_\_\_  
Name of Director/Secretary in full

**Signed, sealed and delivered** by **Hills Motorway Management Limited** **ABN 89 064 687 645** in its capacity as trustee of the Hills Motorway Trust by:



Signature of Director

**SAMANTHA HOGG**

Name of Director in full



Signature of Director/Secretary

**JULIE GALLIGAN**

Name of Director/Secretary in full