



ENVIRONMENTAL ASSESSMENT

Section 75W Modification Application

Felix Resources Limited

Moolarben Coal Project Stage 1

December 2008

CR 6014_1_v1.

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S75W Modification Application
Moolarben Coal Project Stage 1

1. INTRODUCTION

This report has been prepared by Coffey Natural Systems on behalf of Moolarben Coal Mines Pty Limited (MCM), which is a wholly owned subsidiary of Felix Resources Limited (FRL), a publicly listed company on the Australian Stock Exchange.

This report constitutes an application made pursuant to Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act), seeking modification of the Major Project Approval for the Moolarben Coal Project (MCP), issued on 6 September 2007 and as modified on 26 November 2008.

This modification seeks approval for preliminary construction activities to be commenced at the MCP site prior to completion of the main mine access intersection, off the Ulan–Cassilis Road. These construction activities will be carried out between the 15 December 2008 and the 16 January 2009, at which time the intersection will be completed. During this time, only minimal vehicle numbers (up to 12 trucks and 10 light vehicles) and a commensurate number of construction workers will access the site.

2. BACKGROUND

2.1 Project location

The MCP is located in the Western Coalfields of New South Wales, east of the village of Ulan and approximately 40 km northeast of Mudgee, in the Mid Western Regional Council local government area.

2.2 The Moolarben Coal Project

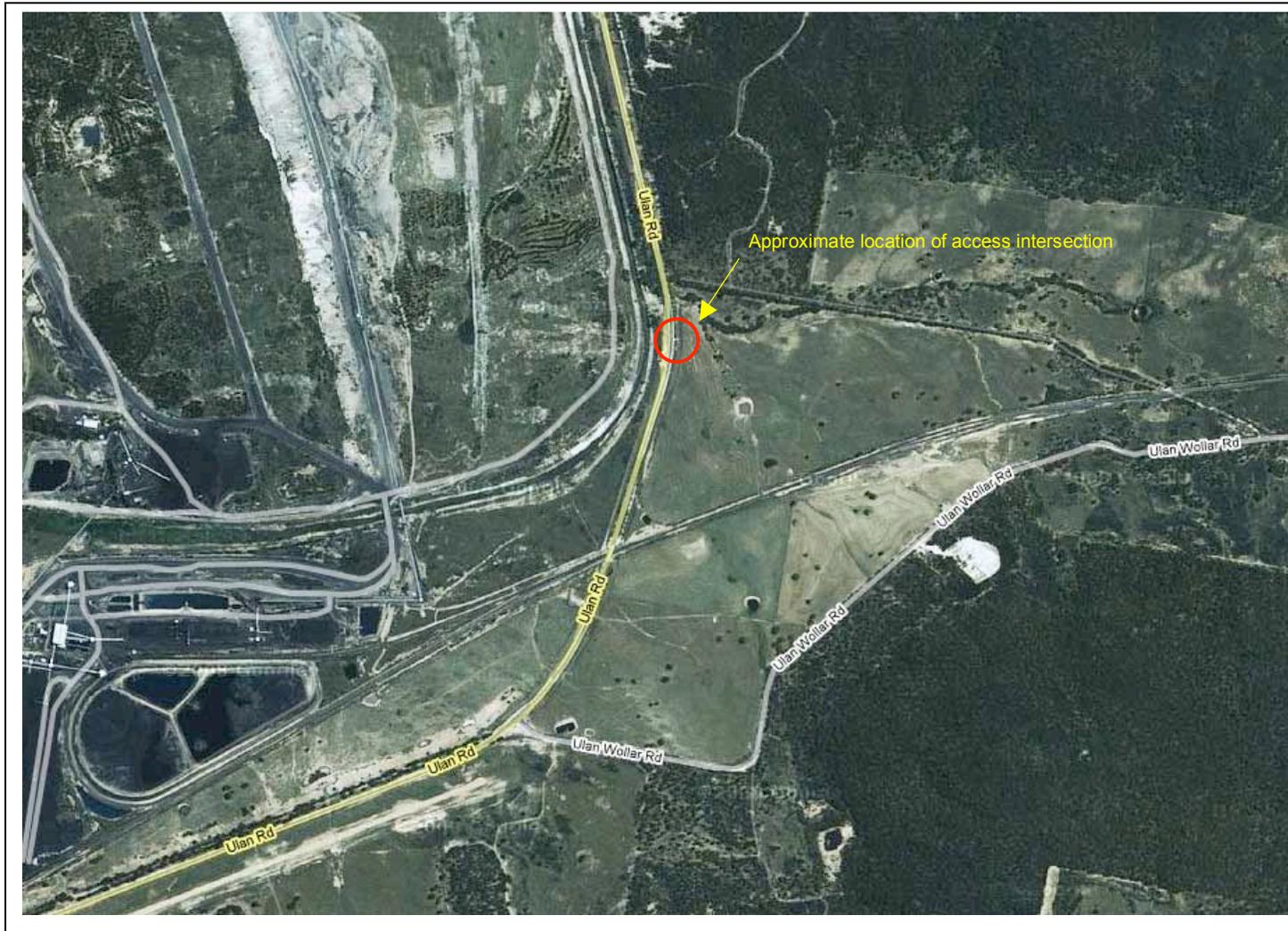
On 6 September 2007, the Minister for Planning granted project approval for the MCP (MP 05_0117). This was modified on 26 November 2008.

The approved project, as modified, entails the construction and operation of three open cut mines, one underground mine; coal handling, processing and rail load out infrastructure; and associated surface facilities. At full production, the MCP will produce up to 10 million tonnes of product coal per annum for export and domestic markets, and will employ in excess of 300 permanent full time workers.

The project approval provides two vehicle access points to the mine:

- A primary mine access point off Ulan–Cassilis Road (Main Road (MR) 214), about 400 m north of the Gulgong–Sandy Hollow railway bridge (see Figure 2-1). This mine access point provides access to the main mine site office, coal handling preparation plant, coal stockpile infrastructure areas and rail load out facilities, to be developed to the north of Ulan–Wollar Road.
- A second mine access point off Ulan–Wollar Road, about 200 m east of the intersection with Ulan–Cassilis Road. This mine access point provides access to the open cut operations, to be developed to the south of Ulan–Wollar Road.

Figure 2-1 Location of site access intersection



Source: Google Maps 2008

3. PROPOSED MODIFICATION

3.1 Summary of proposed modification

The proposed modification involves permitting minor construction activities to commence at the site prior to completion of the main mine site access intersection off Ulan–Cassilis Road. No other changes would be made and construction and operation of the project would occur generally as described in the Environmental Assessment (EA) Report and Preferred Project Report, and in accordance with all other conditions of the Minister’s approval, as modified.

This modification will not affect the extent or timing of the mining activities or any other aspect of the approved project.

3.2 Need for modification

Condition 51(a) of Schedule 3 to MP 05_0117, as modified, requires the main mine access point (off Ulan–Cassilis Road – MR214) to be constructed to the satisfaction of the NSW Roads and Traffic Authority (RTA), prior to the carrying out of any construction on the site.

Construction of this access point intersection commenced on the 5 December 2008, with completion expected around the 16 January 2009. MCM now require access to the site to facilitate delivery and erection of a demountable office. These construction activities are proposed to occur between about the 15 December 2008 and 16 January 2009. Site access for delivery and construction crew traffic would be via the intersection under construction. It is expected the intersection will be in a serviceable condition to allow traffic to enter the MCP site by this date.

In order for these construction activities to commence (i.e., delivery and erection of the demountable office) site access approval is required, and MCM is seeking that these minor construction activities be allowed to occur on site from 15 December 2008.

3.3 Intersection construction works

The design of the intersection was prepared by SKM and approved by the RTA on 15 September 2008 (Appendix 1). Approval of the intersection design was granted subject to inclusion of updated line markings, signs, and culverts. These requirements were incorporated into the final intersection design (Appendix 2). The construction of the intersection has been contracted to Mid Western Regional Council (MWRC).

Initial works for the MCP will be carried out on site between 17 December 2008 and 16 January 2009, between the hours of 7.00 a.m. and 5.00 p.m., 7 days a week, and are planned to continue through the Christmas and the New Year period.

3.4 Site access and preliminary mine construction activities

The number of trucks initially accessing the site will be 12. This includes the delivery of demountable office sections, as well as the necessary equipment to enable the site to be

prepared and office buildings to be erected. Delivery trucks will require access to the site from about the 17 December 2008, for a period of 3 to 4 days (see Table 3-1). No oversized vehicles would access the site prior to completion of the mine site intersection.

A small number of light vehicles will also require access to the site from about the 15 December 2008 through to around mid January 2009. It is envisaged that the total number of construction workers will be commensurate with the number of anticipated vehicles (see Table 3-1).

No other construction activities will be carried out prior to completion of the mine access intersection.

Table 3-1: Initial construction activities

Time period	Construction activities	Construction workforce	Number of vehicles
15 to 16 December 2008	Initial site preparation works (e.g. surveys)	Up to 6	Up to 6 (light vehicles only)
17 to 20 December 2008	Deliveries to site including demountable office sections, bobcat, forklift, and other associated work equipment. Minor site clearing and levelling (1 day). Installation of screw footings (2 days). (See Appendix 3)	Up to 6	Up to 6 (including 2 trucks - no oversized vehicles)
20 to 23 December 2008	Installation of demountable office sections on footings (2 days). Connection of building sections (2 days).	Up to 6	Up to 6 (light vehicles only)
5 to 10 January 2009	Erection of decking (3 days). Connection of internal components (3 days). Connection of external services (3 days).	Up to 4	Up to 4 (light vehicles only)
12 to 16 January 2009	Commission and acceptance (2 days).	Up to 2	Up to 2 (light vehicles only)

4. PLANNING FRAMEWORK

4.1 S75W EP&A Act

Under Section 75W of the EP&A Act, the proponent may request the Minister's approval for a project to be modified.

The terms of the Minister's approval can be modified by revoking or varying a condition of the approval or by imposing an additional condition of the approval, and by changing the terms of any determination made by the Minister under Division 3 in connection with the approval.

MCM seeks to modify the Project Approval through varying a condition of the Project Approval.

4.2 Amendments to conditions

Conditions 51 and 52 of Schedule 3 of the Project Approval for the MCP set out the requirements for certain road works to be constructed prior to the carrying out of any construction on site. In particular, Condition 51(a) (as modified on 26 November 2008) relates to the mine site access intersection off Ulan–Cassilis Road:

- 51 *Prior to carrying out any construction on site, the Proponent shall:*
- (a) *construct the new intersection between the Ulan–Cassilis Road (MR 214) and the proposed mine access road for the coal handling preparation plant and coal stockpile infrastructure area;*
- ...
- to the satisfaction of the RTA.*

MCM propose modifying this condition as follows:

- 51 *Prior to carrying out any construction on site, **unless otherwise authorised by the Director-General**, the Proponent shall:*
- (a) *construct the new intersection between the Ulan–Cassilis Road (MR 214) and the proposed mine access road for the coal handling preparation plant and coal stockpile infrastructure area;*
- ...
- to the satisfaction of the RTA.*

5. ENVIRONMENTAL ASSESSMENT

5.1 Existing environment

The MCP is located east of the intersection of two designated main roads: Ulan–Cassilis Road (MR 214), which connects Mudgee with Cassilis; and Cope Road (MR 598), which connects Ulan with Gulgong. The MCP is located either side of the Ulan–Wollar Road where it meets Ulan–Cassilis Road. Ulan–Cassilis Road is a two-lane road with a speed limit of 100 km/h and provides the primary access route to the Ulan and Wilpinjong coal mines and the MCP.

Traffic flows, road safety and pavement performance of Ulan–Cassilis Road were assessed in the EA for the MCP (Wells Environmental Services, 2006). These aspects of the local and regional road network were also assessed in a later EA for a modification to the Wilpinjong Coal Project (Resource Strategies, 2007). Projected two-way daily traffic numbers on Ulan–Cassilis Road north of Ulan was reported in both studies to be in the order of about 1,500 axle pairs, the majority of this traffic being comprised of light vehicles travelling to and from the Ulan, Wilpinjong and Moolarben mines, once all mines were fully operational.

School bus services operate along several routes in the area, including along Ulan–Cassilis Road. The school bus routes in the vicinity of the MCP include:

- Cooks Gap to Mudgee – Ulan–Cassilis Road.
- Ulan to Mudgee – Ulan–Cassilis Road.
- Turil to Gulgong – Cope Road.
- Yarrawanga to Gulgong – Yarrawanga Road.
- Winchester Crescent and Ridge Road to Ulan – Ulan–Cassilis Road.

School buses generally travel along these routes between 7.30 a.m. and 9.00 a.m., and 3.00 p.m. and 5.00 p.m., Monday to Friday, during school terms.

The MCP access intersection off Ulan–Cassilis Road is currently under construction, and a suite of traffic controls have been implemented in accordance with a MWRC approved traffic control and management plan (see Appendix 4 and section 5.3).

5.2 Potential impacts

The impacts of constructing and operating the mine access intersection off Ulan–Cassilis Road were assessed and discussed in the EA for the MCP.

The traffic impact assessments prepared for the EA for the MCP and modification to the Wilpinjong Coal Project reported that existing daily traffic flows on Ulan–Cassilis Road in the vicinity of the MCP were generally low and well within the carrying capacity for a regional road of this type. Further that cumulative traffic growth associated with the Ulan and Wilpinjong coal mines and the MCP would not result in any significant additional traffic safety or capacity constraints in the medium to long term.

The proposed modification will not impact on the performance of the local road network. While some road users may be temporarily inconvenienced as result of roads works associated with

construction of the MCP mine access intersection, this has already been assessed and approved by the Minister.

As previously described traffic associated with the proposed preliminary construction activities will be limited to about 12 trucks and 10 light vehicles, and will utilise the unfinished intersection for a period of approximately 4 weeks from about the 15 December 2008. This represents a maximum number of vehicles that may need to access the MCP site prior to the completion of the access intersection. Not all these vehicles would be on site at the same time, or for the whole four-week period (see Table 3-1). This level of preliminary construction traffic is not expected to have any impact on Ulan–Cassilis Road, or on existing road users. Traffic flows associated with the temporary use of the mine access intersection prior to completion of the intersection are insignificant compared to the cumulative traffic flows on the local road network. Further, suitable traffic management and control measures are in place to enable this additional low level of traffic to safely enter and exit the MCP site through the intersection. Finally, the proposed preliminary construction activities will occur primarily within the school holiday period, which removes the potential for conflict with local school bus services.

Therefore the proposed modification is not expected to have any impact on the local road network or on existing private or public road users.

5.3 Mitigation measures

The traffic control and management plan prepared by MWRC (Appendix 4) will be implemented for the duration of intersection construction works, during which time the modification activities are proposed.

Traffic signals have been installed at the intersection and will be operated when works are within three metres of Ulan–Cassilis Road. Intersection construction work will generally be carried out to ensure one lane and shoulder of the Ulan–Cassilis Road remains open, with traffic flow on the open lane controlled by licensed traffic controllers. The traffic controllers will manage traffic queue lengths in accordance with the traffic control plan.

Whilst work is in progress, traffic speed will be reduced from 100 km/hr to 40 km/hr within the work zone. Outside of working hours, speed zones will likely revert to 80 km/hr, but this will be determined by the condition of the road surface through the work zone. Further, every effort will be made to ensure the roadway is left in the best possible condition to reduce inconvenience due to speed restrictions.

In addition, MCM has prepared a suite of environmental management plans and monitoring programs for the construction phase of the MCP. It is a requirement of the Minister's approval for the MCP that these plans and programs be approved by the Director-General prior to commencement of construction activities at the site. It is expected that the relevant plans and programs will be approved and that the relevant aspects of these will be implemented prior to the proposed preliminary construction activities being carried out.

This comprehensive suite of measures will fully mitigate any safety or environmental issues associated with the commencement and carrying out of the proposed preliminary construction activities, prior to completion of the site access intersection.

6. CONCLUSION

This application seeks to modify Condition 51 (a) of the MCP Project Approval to allow certain preliminary and minor construction activities to commence on site prior to the completion of the main mine access intersection off Ulan–Cassilis Road. Further, this modification seeks approval to access the site through this intersection whilst it is under construction.

The proposed modification will not cause any additional impacts to the approved activities for the MCP, and the potential for direct impact associated with the preliminary construction activities will be minor and can be easily mitigated. Overall, the impact of using the intersection and commencing preliminary construction activities on site prior to the intersection being finalised is considered negligible.

This report clearly demonstrates that the proposed modification is generally consistent with the terms of the Minister’s approval for the MCP (as modified). Further, that there will be no substantive environmental impacts as a result of the use of the intersection or minor construction activities commencing on site prior to the intersection being finalised. Finally, all other aspects of the MCP will remain consistent with the project approval.

7. REFERENCES

Wells Environmental Services. 2006. Moolarben Coal Project Environmental Assessment Report. Report prepared for Moolarben Coal Mines Pty Limited, NSW, Australia.

Resource Strategies. 2007. Wilpinjong Coal Project Modification Environmental Assessment. Report prepared for Wilpinjong Coal Pty Limited. NSW, Australia.

Appendix 1

RTA Approval of Intersection Design



File 308.5395 05/3-9; C08/530

The General Manager
Mid Western Regional Council
PO Box 156
Mudgee NSW 2850

Dear Sir,

Moolarben Coal Project, MR214 Underground Mine 4 Intersection Design

I refer to correspondence from Andrew Kearins received on 5 September 2008 requesting RTA approval for an intersection design shown on SKM Drawings NF00921, Sheets 1-22, dated September 2008.

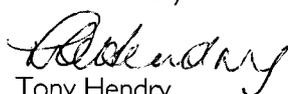
The material presented has been examined and the Roads and Traffic Authority (RTA) will not object to the proposed intersection design subject to the following points being addressed:

- All existing linemarking to be permanently removed, as per Note 4 on Sheet NF00921-DD-161.
- The "Moolarben Coal Underground Administration" signs are to be white lettering on a blue background, with uppercase lettering.
- The culvert across the access road is to have sloped headwalls.
- The informal access opposite the mine access (approximate Chainage 280) is to be sealed to prevent carriage of debris onto MR214.
- A Road Occupancy Licence is required prior to any works commencing within 3m of the travel lanes. This can be obtained by contacting Mr Paul Maloney on 02 6861 1686. Submission of a traffic control plan is required as part of this licence.
- All works associated with the development are to be at no cost to the RTA.

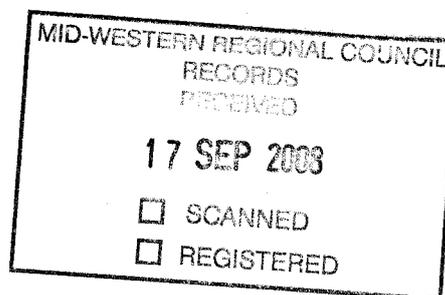
It is noted that the plans are of a high quality and the design consultants should be commended. The detail and clarity of the design aided the assessment process.

Should you require further information, please contact Fiona Nobes on 02 6861 1688.

Yours faithfully


Tony Hendry
Road Safety & Traffic Manager
Western

15.09.08



Appendix 2

Final Intersection Design

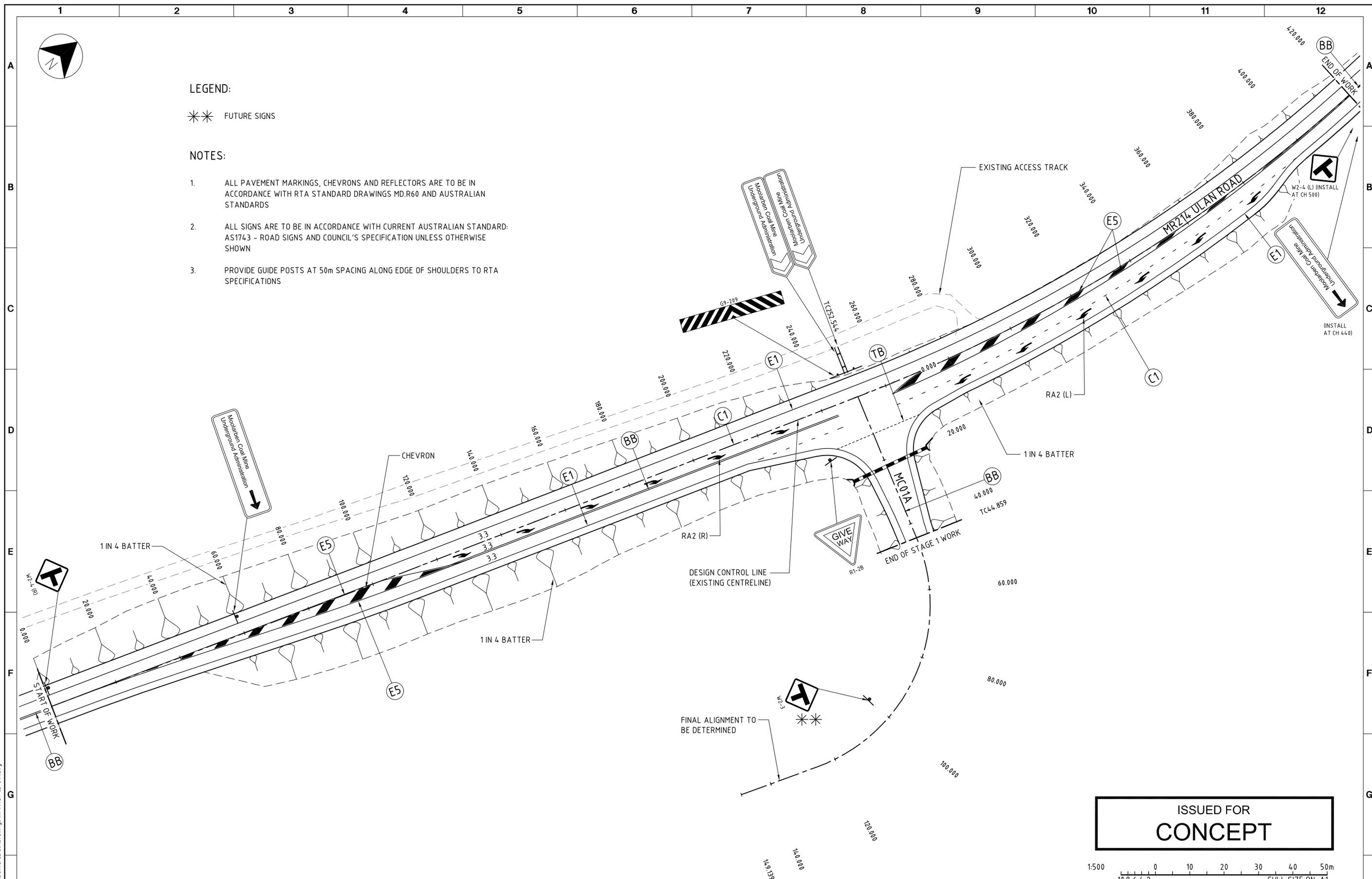


LEGEND:

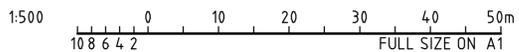
✱✱ FUTURE SIGNS

NOTES:

1. ALL PAVEMENT MARKINGS, CHEVRONS AND REFLECTORS ARE TO BE IN ACCORDANCE WITH RTA STANDARD DRAWINGS MD.R60 AND AUSTRALIAN STANDARDS
2. ALL SIGNS ARE TO BE IN ACCORDANCE WITH CURRENT AUSTRALIAN STANDARD: AS1743 - ROAD SIGNS AND COUNCIL'S SPECIFICATION UNLESS OTHERWISE SHOWN
3. PROVIDE GUIDE POSTS AT 50m SPACING ALONG EDGE OF SHOULDERS TO RTA SPECIFICATIONS



ISSUED FOR
CONCEPT



No	DATE	DRAFTING CHECK	DESIGN REVIEW	REV'D P.MGR	APP'D P.DIR	CONCEPT DESIGN
A	31.07.08					
						AMENDMENT

No	DRAWING NUMBER	REFERENCE DRAWING TITLE
1		

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CLIENT WHITE MINING LTD.			
PROJECT MOOLARBEN COAL PROJECT			
DRAFTER DT	DRAFTING CHECK MAJ	REVIEWED PROJECT MANAGER MAJ	APPROVED PROJECT DIRECTOR RJP
DESIGNED JBH	DESIGN REVIEW RJP		

TITLE MOOLARBEN COAL PROJECT - ROAD DIVERSION & INTERSECTION LINEMARKING & SIGNPOSTING INTERSECTION MC01A MR214 / UNDERGROUND ACCESS			
SCALE 1:500	SKM PROJECT No NF00921	DRAWING No NF00921-CD-002	AMDT A

DATE: 31.07.2008@14:59:55 LOGIN NAME: dfradic XREF: XREF-NF00921-ULAN ROAD CONCEPT DESIGN LOCATION: I:\NFRA\Projects\NF00921\Deliverables\Drawings\NF00921-CD-301.dwg

Appendix 3

Screw Pier Foundation System for Remote Structures



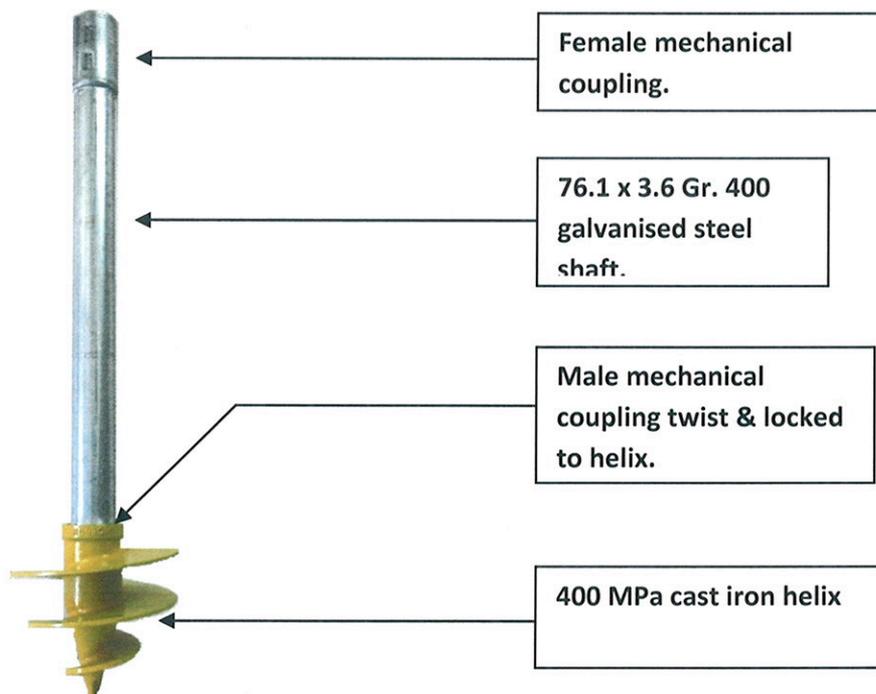
Screw Pier Foundation System for Remote Structures.



Series 1 Screw Piers installed and fastened to Lysaght "C" section.

Series 1 Screw Pier Product Specification:

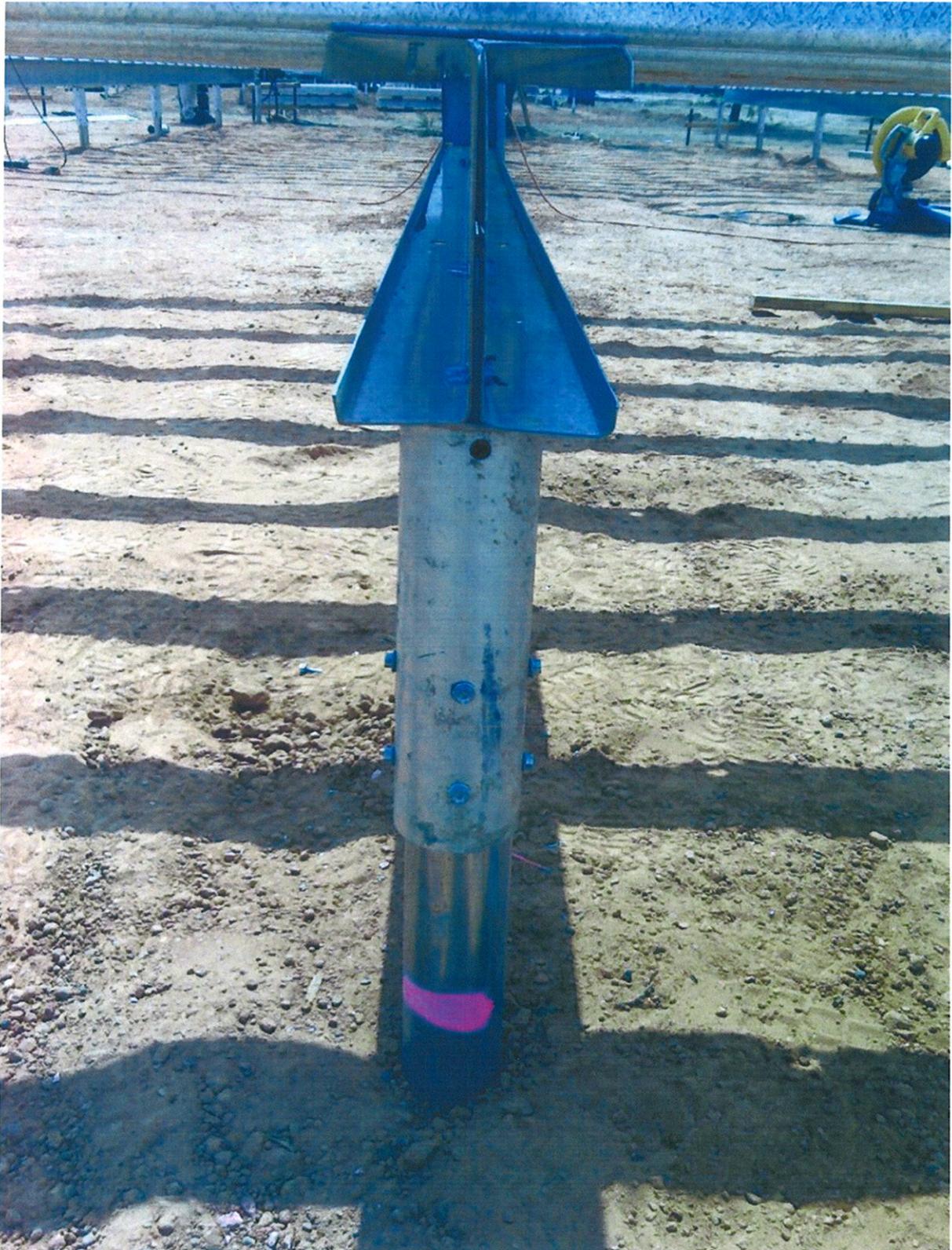
1. Ultimate axial capacity of screw pier shaft: 230kN.
2. Ultimate torsional capacity of shaft: 7,800 Nm.
3. Area of base helix (for bearing capacity assessment): 0.20m²
4. Ultimate geotechnical capacity in compression (Ruu): 270 kN.
 - Design action effect in compression ($R_{ug} = 0.5 \times 274$): 135 kN.
 - Safe working Load in compression ($Q_{swl} = R_{ug}/1.35$): 100 kN.
5. Ultimate geotechnical capacity in tension (Ruu): 135 kN.
 - Design action effect in tension: ($R_{ug} = 0.5 \times 135$): 67.5 kN.
 - Safe working load in tension ($Q_{swl} = R_{ug}/1.35$): 50 kN.
6. Shaft Lengths: 1000mm, 1500mm, 2000mm & 3000mm (Supplied in pallet packs of 40).
 - (All shafts are extendable on site using the twist & lock male to female coupling system).
7. Cast Iron Helices: Supplied in steel crates of 120.



Screw Pier Installation using a Bob Cat and 8000 Nm Planetary Drive.



Screw Pier Installation completed and pier cap fixed to steel flooring system.



Engineering Certification for Compression Loading



Douglas Partners
Geotechnics • Environment • Groundwater

Douglas Partners Pty Ltd
ABN 75 053 980 117
96 Hermitage Road
West Ryde NSW 2114
Australia

PO Box 472
West Ryde NSW 1685
Phone (02) 9809 0666
Fax: (02) 9809 4095
sydney@douglaspartners.com.au

22 April 2002
Project 30378
BJM:bjm

Heltech Industries Pty Ltd
1/59 Lawrence Drive
NERANG QLD 4211

Attention: Mr Paul Camilleri

Facsimile: (07) 5578 2155

Dear Sir

SCREW PIER RESEARCH & DEVELOPMENT CERTIFICATION OF STATIC LOAD TEST RESULTS

Douglas Partners Pty Ltd (DP) were commissioned by Heltech Industries Pty Ltd to undertake three (3) static load tests on a new steel screw pier product developed by Heltech.

The static load testing programme was conducted by DP generally in accordance with the requirements of AS 2159 – 1995 and was completed in April 2002.

We hereby certify the results of the static testing programme:

Test Pile No.	Installed Torque (Nm)	Design Action Effect S* (kN)
1	1900	60
2	2200	60
3	2400	100

This letter should be read in conjunction with our report No. 30378-1, dated April 2002, which describes the testing programme and provides comments on the results obtained.

Please contact the undersigned if you have any further queries in relation to the above.

Yours faithfully
DOUGLAS PARTNERS PTY LTD


Bruce McPherson
Senior Associate

Reviewed by


Dr Terry Wiesner
Principal

Integrated Practical Solutions



Offices: Sydney, Newcastle, Brisbane, Melbourne, Perth, Wyong, Campbelltown, Townsville, Cairns, Wollongong, Darwin, Canberra
Principals: K A Boddie, J C Braybrooke, M Y Broise, J P Harvey, B W Ims, S R Jones, J Lean, A N Lee, R W Lumsdaine, F MacGregor, P McDonald, B. McPherson, G W McIntosh, J M Nash, M J Thom, R Tong, T J Wiesner, A J Wilson, G R Wilson, G S Young
Senior Associates: R Birman, C Bozinovski, A Castrissios, G Hawkins, C Marais, B Mattick, A Middleton, I Piper, K Preston, D Qualischefski, B Rippingale, L Rockett, K Schultz, B Stewart, D Tilly, T Waters, E Wilkins, W Wrig
Associates: C Bell, D Carson, C Deegan, S Dorairaj, D Duff, S Easton, D Evans, M Gawn, M Jones, J Krestyn, R Lloyd, S McFarlane, D McLintock, D Martin, P Maurici, D Millard, A Murphy, D Murray, J Niland, P Oltmas, T Sweetland, C Stewart, F Verheyde, J Wharton, N Weimann, D Woods

Engineering Certification for Tension Loading



21st November 2007

To whom it may concern,

RE: HOLD DOWN CAPACITY FIELD TESTING CERTIFICATION – SCREW PILES

This letter certifies that the Series 1 Screw Pier Hold Down Capacities for cohesive & cohesionless soils based on field testing carried out on the 21st November 2007 are as follows:

Hold Down Capacity Chart				
<i>Install depth of screw pier (mm)</i>	<i>Min. installation torque (Nm)</i>	<i>Ultimate geo. Capacity Ruu (kN)</i>	<i>Design action effect Rug (kN)</i>	<i>SWL in Tension Q (kN)</i>
1000	5000	60	30	22
1500	6000	70	35	26
2000	7000	135	67.5	50

Please contact the undersigned if you have any further queries.

Regards

A handwritten signature in black ink that reads 'Mario Gregorovic'.

Mario Gregorovic

BE, MIEAust, CPEng, RPEQ 7018

Heltech Industries Pty Ltd – 60 Export Drive Molendinar 4214 – ABN 21 100 172 905
ACN 100 172 905
Telephone: (07) 55716006 Facsimile: (07) 55940051 - Email: admin@heltech.com.au

Heltech 300 Ø height adjustable, Universal Pier Cap Assembly.



Typical construction sequence to install Heltech Screw Pier System for Transportable Buildings:

- 1) After set out, install Screw Piers to correct height.



- 2) Check height of pier cap to allow for ground clearance.



3) Tek screw fix pier cap to screw pier using 14# x 30mm tek screws.



4) Fix building to pier cap.



Appendix 4

Traffic Control and Management Plan



Mid-Western Operations TRAFFIC MANAGEMENT PLAN

VERSION FOR: Moolarben Intersection

DOCUMENT CONTROL

For controlled copies of this TMP, the copy number is shown below and initialled in RED by the Works Manager. (Uncontrolled copies are not initialled in RED).

Controlled Copy No:	Issued by:
Issued to:	Date:

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1. Project Description

The works for the Moolarben Intersection will involve construction of a new intersection off the Ulan Rd. Project specify requirements will involve the following:

- Widening of the existing pavement to allow for the new intersection.
- Installation of new signage.
- Asphalt overlay at the intersection.
- New pavement marking

Our staffing for this project is:

Group Manager Operations	Brad Cam
Works Manager	Michael Watts
Works Coordinator	Robert Manca
Works Officer	Stephen Payne
Team Leader	Peter Tritton
Testers	Macquarie Geotech

Project features, which must be considered with regard to Vehicle Movements, include:

- traffic volumes of approximately 1320 AADT with an estimated 12% heavy vehicles.
- a 100 km/hr alignment .

2. Traffic Management Plan Requirements

2.1. GENERAL

Mid-Western Operations recognises that the safe movement of traffic and the protection of persons and property through and/or around the worksite are of paramount importance in the completion of works under the contract.

As such, Traffic Management is to be given the highest priority of resources, in terms of plant/equipment, personnel and line management.

Traffic Management must also be planned to:

- minimise delays to the travelling public;
- minimise disturbance to adjacent property owners; and
- avoid disturbance to environmentally sensitive areas;

2.2. REFERENCE DOCUMENTS

The following documents shall be used in the planning, implementation and review of Traffic Management:

- AS 1742.3 – 2002 - Traffic Control Devices for Works on Roads
- RTA Traffic Control at Worksite Manual V3 – 2003 Edition
- RTA QA Specification G10 – Control of Traffic – (Maintenance Works)
- Traffic Management Plan
- Mid-Western Operations Construction Quality Plan (CQP)

2.3. RESPONSIBILITIES

Responsibilities for Traffic Management are assigned as follows:

2.3.1. DESIGN

Works Manager or Works Coordinator carries out design of Traffic Control Plans (TCP) for a wide range of typical carriageway/lane/work zone combinations. All persons designing TCP's have completed a RTA accredited training course in 'Traffic Control at Worksites.'

The person designing the plan liaises with the Works Officer regarding any site-specific conditions, which need to be considered in the design.

2.3.2. APPROVAL

The Works Manager or Works Coordinator must approve standard TCP's for use.

2.3.3. IMPLEMENTATION AND REVIEW

Implementation of the TCP's on site is the responsibility of the Works Officer/Team Leader. Specific topographic and climatic conditions including, but not limited to: sight lines at crests and curves, roadside vegetation, glare, shadows, fog, dust and observed traffic behaviour are considered when implementing the plans. Any site-specific amendments to the approved TCP will be recorded on the TCP.

The Works Officer or Team Leader shall regularly review the effectiveness of the TCP and make and document any necessary alterations.

The daily checklists attached to each Traffic Control Plan will be completed by the Works Officer or Team Leader and stored onsite.

2.3.4. DOCUMENTATION

The Works Officer is responsible for the maintenance of all documentation associated with on site traffic control under the contract. TCP's and associated documentation will be stored on project files.

2.3.5. TRAFFIC CONTROLLERS

Traffic controllers are responsible for controlling traffic in accordance with the approved TCP, as amended. The Works Officer and/or Team Leader are to ensure that Traffic Controllers fully understand the TCP in use.

3. Project Specific Requirements

The following Traffic Control Plan that will be used on the worksite.

1. MI - 01

Work will generally be carried out to ensure one lane and shoulder remains open, with traffic flow on the open lane controlled by licensed traffic controllers. The traffic controllers will manage traffic cue lengths in accordance with the notes on the TCP for the site.

Whilst work is in progress, traffic speed will be reduced to 40 km/hr within the work zone. The site is wholly within an existing 100km/hr zone. Outside of working hours, speed zones will be determined by condition of the road surface. Every effort will be made to ensure that the roadway is left in the best possible condition to reduce inconvenience due to speed restrictions.

All vehicle movements will be planned so as to minimise any likelihood of damage to the local vegetation.

Direction to Restrict No. has been obtained to permit temporary speed zones to be enforced. A copy is attached as Appendix A.

Proposed typical Traffic Control Plans are shown in Appendix B.

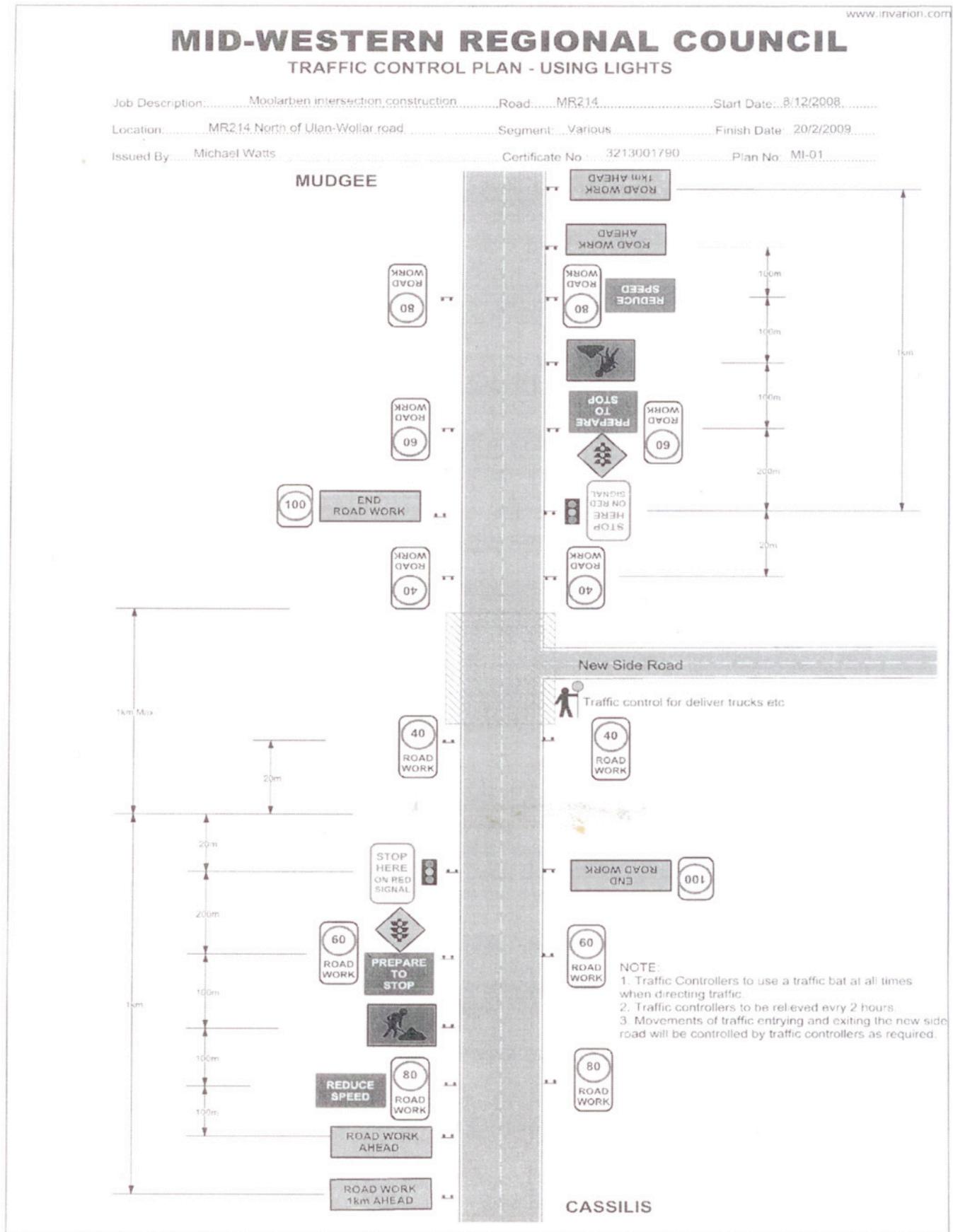
The following requirements will be put into place for construction plant leaving and entering the worksite:

- There will be 80km speed zone through the area of the work site during work hours and, as site conditions require it.
- The construction zone will be designed to accommodate the entry and exit of construction traffic.
- Entry and exit locations will be identified in the site induction process or at the toolbox meetings and marked using signs and entrance/exit numbers.
- Access to the worksite will be long enough to allow vehicles to slow down.
- Where possible access areas will be cordoned off from the work areas to reduce the possibility of collision between vehicles entering the zone and those already operating there.
- Exits will be located where possible in a position that allows construction equipment to get up to the posted road speed limit as soon as possible. (Note: Heavy equipment often needs extra room for acceleration).

4. APPENDIX A - DIRECTION TO RESTRICT

N/A

5. APPENDIX B - TRAFFIC CONTROL PLANS



Project: TCP No:

Team Leader: Signature:

SIGN CHECK				
DAY/DATE	TIME		CHECKED BY	SIGNATURE
		Installed		
		Checked		
		Removed		
		Installed		
		Checked		
		Removed		
		Installed		
		Checked		
		Removed		
		Installed		
		Checked		
		Removed		
		Installed		
		Checked		
		Removed		

- The following points need to be considered:
- Place signs at least 1 metre clear of traffic paths wherever possible
- Ensure signs are mounted securely and will not blow over.
- See that signs are placed in the drivers line of sight and not too far off to one side.
- Ensure that signs are not obscured by parked cars, trees, poles or other obstructions are not in the shade. You may need to move them backward a few metres from the position shown on the plan. (This should be noted on the plan)
- Make sure the signs are not a hazard to workers or other road users.
- Ensure the signs are not a hazard to workers or other road users.
- Ensure the signs cannot deflect vehicles into wrong or dangerous paths.
- Cover up any existing permanent signs that do not apply
- Do not interfere unnecessarily with traffic flow.
- Do not force drivers to break the law, eg. Make sure traffic diversions do not force drivers to cross double lines or disobey regulatory signs.
- Ensure all workers are wearing high visibility clothing.
- Remove temporary signs and cones at the finish of work/day.

