



WAGSTAFF PILING

Innovative Foundations

SITE MANAGEMENT PLAN

Incorporating

Safety, Quality & Environmental Management
To meet the requirements of

AS 4801: 2001

(Occupational Health and Safety Management Systems)

AS/NZS/ISO 9001: 2000

(Quality Systems)

AS/NZS/ISO 14001: 2004

(Environmental Management Systems)

Client: Hunter Alliance

Project Name: Minimbah Bank Third Track

Job Number: 2009 / 07 / 089N

WP Project Manager: Daniel Hanus

Document Status: **Controlled**

Issue Date: **20 July 2009**

Approved for release by: Daniel Hanus

Copy Issued To:	Transmitted By:	Date:	Issued By:
Hunter Alliance	E-mail / Post / Hand	20 July 2009	Daniel Hanus
Ken Roberts	Hand	20 July 2009	Daniel Hanus



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WP Project Manager:

Daniel Hanus

Should any of the contents of this Site Management Plan not be understood, ask for clarification from the Project Manager.

I acknowledge that I have read and understood the contents of the Site Management Plan for this Project and the Wagstaff Piling Work Procedures for the Project including the Job Safety & Environmental Analysis.

SUPERVISOR: (NAME) _____ (SIGN) _____

OPERATOR: (NAME) _____ (SIGN) _____

OPERATOR: (NAME) _____ (SIGN) _____

LABOURER: (NAME) _____ (SIGN) _____

LABOURER: (NAME) _____ (SIGN) _____

LABOURER: (NAME) _____ (SIGN) _____

DATE: _____ / _____ / _____

(Note: The contents of this Site Management Plan shall be discussed and noted at the *Start-up Tool Box Meeting*, and this form, when completed, returned to the Project Manager by the Supervisor)

Job Name: Minimbah Bank Third Track

Job Number: 2009 / 07 / 089N

Revision Date	Client	Project	"Subby Pack" Index Reference
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1. Project Specific Documents for Job 089N

• Title Page	20/07/2009	✓	✓	1.0
• Index Page	20/07/2009	✓	✓	1.0
• Introduction	20/07/2009	✓	✓	1.0
• Contract Quality Plan	20/07/2009	✓	✓	3.0/4.0/7.0
• Work Procedure incorporating I.T.P. for Bored Piles	20/07/2009	✓	✓	
• Set Calculations	(Issue Date)	✓	✓	
• Job Safety & Environmental Analysis	20/07/2009	✓	✓	4.0
• Disclaimer	20/07/2009	✓	✓	
• "Dial Before You Dig" Information	(Issue Date)		✓	5.0
• Construction Drawings	(Issue Date)		✓	4.0

2. Administration

• Insurance Information and Employee Benefits Information	01/07/2009	✓	SM	
• Organisation Chart	06/01/2009	✓	SM	
• Safety Policy	06/01/2009	✓	SM	
• Corporate Medical Fitness, Drugs & Alcohol Policy	19/03/2009	✓	SM	
• Quality Policy	05/01/2009	✓	SM	
• Environmental Management Policy	05/01/2009	✓	SM	
• Equal Opportunity Policy	05/01/2009	✓	SM	
• Rehabilitation Policy	05/01/2009	✓	SM	2.0

3. Safety Management

• Workplace Rehabilitation Policy	30/11/2007	✓	SM	8.0
• Safety and Environmental Authority and Responsibility	12/03/2009	✓	SM	3.0
• MSDS Register	15/07/2008	✓	SM	12.0
• Risk Assessment Procedure <i>A Guideline to the Design, Construction & Maintenance of a Suitable Safe Working Platform</i>	11/02/2004	✓	SM	5.0/6.0/10.0
• Wagstaff Piling Safety Bulletin Register	27/09/2004	✓	SM	
• "Record of Toolbox Meeting" Proforma	28/04/2008	✓	SM	17.0
• Plant Maintenance and Safety Checklist	11/02/2004	✓	SM	14.0
• Person Injured - What to do	11/02/2004	✓	SM	18.0
• Injury / Incident Report (Proforma)	20/04/2009	✓	SM	18.0
• Pre-Start Safety Toolbox Meeting Checklist	11/01/2006	✓	SM	8.0/10.0/15.0/17.0

4. Quality Management

• AS/NZS ISO 9001:2000 Accreditation Certificate	28/11/2008	✓	SM	
• Daily Piling Report Proforma	19/08/2003	✓	SM	
• Work Improvement Notice (WIN)	25/01/2005	✓	SM	

✓ Included in Client's copy and/or Site copy as indicated
SM Held in Supervisor's Manual which is always on Site

Revision List		
Revision of:	Revision Date:	Issued by:
Original SMP	20 July 2009	Daniel Hanus

All revisions to this Site Management Plan will be under the control of the Wagstaff Piling Project Manager. How this information is controlled and documented during the course of the Project is the responsibility of the Wagstaff Piling Project Manager.

NOTE: Any revisions to this Site Management Plan are to be issued to all Persons detailed on Distribution List and/or others as determined by the Wagstaff Piling Project Manager.

Confidentiality Clause

The information contained in this document is confidential with a commercial value to Wagstaff Piling Pty Ltd.
If you are not the intended recipient, any use, disclosure or copying is unauthorised.



WAGSTAFF PILING

Innovative Foundations

SITE MANAGEMENT PLAN

Introduction

This document is produced by Wagstaff Piling Pty. Ltd. to demonstrate our commitment to achieving the highest Safety, Quality and Environmental Management standards on all our Projects.

All Wagstaff Piling personnel are familiar with our work methods and procedures and their adherence to these requirements will ensure that Wagstaff Piling meets or exceeds our client's expectations.

This document is Project specific and addresses all aspects of Safety, Quality and Environmental Management relating to the Project and ensures compliance with all relevant Statutory and Regulatory requirements.

This document is "Controlled". Should any amendments to any documents in this Site Management Plan be required, the Project Engineer will be responsible for such amendments and their control.

A handwritten signature in black ink, appearing to read 'J.P. Wagstaff'.

J.P. Wagstaff
Managing Director

Wagstaff Piling Pty. Ltd.
(ABN 26 052 146 488)

56 Tattersall Road
Kings Park NSW 2148
(P.O. Box 966, Kings Langley, NSW 2147)

Telephone: (02) 9622 7099
Fax: (02) 9622 7133
Email: wp@wagstaffpiling.com.au

Contract Quality Plan		Pile Type: Temporary Cased Bored Piles										
Job Name: Minimbah Bank Third Track		Job No.: 089N		File No.: 208324								
Client: Hunter Alliance		Contact (1) Alex Daffy	Mobile 0417 751 601	Phone	Fax 4979 9988							
Address	PO Box 164	(2) Sunny Singh	0458 337 463	4910 7715	4979 9988							
	Broadmeadow NSW 2922	(3)										
Site Address New England Highway, Singleton												
Document List												
Drawing No/Doc	Description	Revision	Notes	Originator								
ARTCN1080030500	General Arrangement	2	Golden Highway Bridge	GHD								
ARTCN1080030501	Pile Layout & Details	2	Golden Highway Bridge	GHD								
ARTCN1080030400	General Arrangement	2	Mudies Creek	GHD								
ARTCN1080030401	Pile Setout & Details	1	Mudies Creek	GHD								
ARTCN1080030300	General Arrangement	2	Range Road Bridge	GHD								
ARTCN1080030302	Pile Details & Setout	2	Range Road Bridge	GHD								
ARTCN1080030100	General Arrangement	2	Underbridge	GHD								
ARTCN1080030100	General Arrangement	2	Underbridge	GHD								
	Site Investigation											
	Pile Schedule											
	Inspection and Test Plan											
Set Calcs	As per attached sheets (if required)											
Distribution	Client / WP Distribution (Supervisor, Plant Yard, Job File and QP File)											
Scope	Install 4 No. Bridges:											
(1) Golden Highway Bridge	Survey setout	Client										
(2) Mudies Creek Bridge	Reinforcement	Client										
(3) Range Road Bridge	Concrete	Client										
(4) Underbridge	Pile Trim	Client										
	Spoil Removal	Client										
	Pile Testing	N/a										
Specification	Specified Tolerances											
Wagstaff Piling	Position	75mm	Site Certification Requirements									
Client	Verticality	+/- 4%	Induction	Y								
			OH&S	Y								
			R.I.S.I.	Y								
Pile List												
Bridge	No.	Size (mm)	Length (m)	Reo	Ends	Cover (mm)	Concrete	Spiral	Ultimate Load N* (kN)	Remarks		
1	10	1050		By Client		75mm	By Client	By Client				
2	16	600&1200		By Client		75mm	By Client	By Client				
3	12	1050		By Client		75mm	By Client	By Client				
4	20	600		By Client		75mm	By Client	By Client				
Requirements for Customer Supplied Product and Service												
1. 250kPa bearing capacity for Work Platform												
2. Survey / Set out / Levels / As Cons.												
3. Traffic Control												
Notes	Concrete testing		AS 3600		Equipment	No.	Detail	Staffing				
					Rig	1	TRD	Proj Manager	Daniel Hanus			
	Tolerances		AS 2159 - 1995		Dollys			Supervisor	Ken Roberts			
					Bobcat			Rig Oper	TBA			
	Inspection				Excavator			Labourer	TBA			
					Crane							
					Auger							
					Bucket							
					Tremmie							
					Layflat							
					Hopper							
					Hole Covers							
				Grout Tank								
				Grout Pump								
Prepared by		DANIEL HANUS		Approved by				Date	3/7/09	Issue	A	



Work Procedure for Temporary Cased Bored Piles

1. General

The scope of works involves the excavation of bored piles, installing the temporary casing and the placement of reinforcing steel and concrete in each pile.

All work shall be carried out under the daily supervision of an experienced piling Supervisor on site together with experienced engineering management.

All major items of plant, i.e. piling and drilling machines, are owned and fully maintained by Wagstaff Piling Pty Ltd.

All field personnel are experienced and trained in the duties they are required to perform.

All personnel shall wear all necessary safety equipment including high visibility orange rail issue shirts/vests, hard hats, safety boots, safety glasses, ear plugs or earmuffs.

The operator always operates the rigs under the direction of a supervisor or dogman, but never under their judgement alone.

The Client is responsible for providing pile set-out and as-built survey.

2. Method Statement

2.1 Pile Position

Each pile position is pegged by the surveyor and identified by a unique Pile Number.

Two offset pegs are placed at appropriate distances from the surveyed pile centre peg and a triangular jig and plumb bob are to be used to reference the centre of the pile as excavation proceeds.

A tracked drilling rig will be used to excavate all pile locations.

Augers will be used to excavate each pile hole to the specified depth or to such a depth as to achieve the required capacity.



Work Procedure for **Temporary Cased Bored Piles**

2.2 Excavation of Bored Piles

The drilling rig will remove all bored material from the excavation and side cast material at ground level adjacent to the excavation.

Cleaning buckets with reversible floors will be used to remove any loose material in the base of the piles once the specified level is achieved.

No personnel shall be permitted to enter any bored pile excavation.

2.3 Installation of Temporary Liners

The steel liners are pitched into position using the rig or service crane. Steel liners will be turned into the ground using the piling rig with a turning bar attachment.

2.4 Geotechnical Certification

A geotechnical engineer, if required, will be supplied by others. No personnel shall be permitted to enter any excavation.

2.5 Reinforcing Delivery

Reinforcing cages, prefabricated off-site, are delivered to site by truck.

2.6 Reinforcement Placement

Spacers are placed on the sides of the fabricated cage to maintain cover.

Fabricated cages are lifted into position using the winch line on the drilling machine or using a service crane.

2.7 Placing Concrete

If placed in the dry, the agitator trucks are driven into position and the concrete discharged into the hole.

Pile holes will be drilled and filled on the same day in order to minimise the chance of water inflow and collapse.

If the concrete to be poured under water, underwater tremmie methods shall be used with a concrete slump of 180-220mm.



Work Procedure for Temporary Cased Bored Piles

2.7 Placing Concrete (ctd)

The hopper and tremmie pipes should be clean and watertight. The tremmie pipe should be charged with vermiculite to form a barrier between the discharging concrete and the water. A concrete pump with a stiff-leg can be used in lieu of a tremmie, the procedure and concrete specifications are still the same.

The tremmie pipe should extend to the base of the excavation before the tremmie is charged with concrete.

A minimum of 1.5 metres of concrete shall be kept above the base of the tremmie pipe while pouring concrete.

2.8 Spoil

Excavated material from the pile excavation shall be removed from site by others.

2.10 Extraction of temporary liner

After the steel has been pitched and concrete has been placed, the temporary liner is extracted by re-attaching the turning bar to the rig and unscrewing.

2.11 Safety Around the Excavation

The drilling rig offsider is responsible for giving direction to the operator to move the rig. It is the offsider's responsibility to act as a "spotter" around the hole to prevent access by anyone into the excavation.

Whilst excavating any hole, a barricade will be used.

On completion of drilling the pile, suitable hole covers shall be placed over open excavations until the next day when the excavations are back-filled with spoil.

The responsibility of any excavation lies with the Main Contractor the day after the pile has been completed.

2.12 Daily Piling Report & Checklist

Each day the piling supervisor records the day's activities on the Daily Piling Report and Checklist.

ITP FOR MANUFACTURE OF BORED PILES

Job Name:	Minimbah Bank Third Track				ITP Issue Date:	20-Jul-09	Initiated
ITP:	Bored Piles				Issued By:	Daniel Hanus	
Job No:	089N				Approved By:	Daniel Hanus	
REF	ACTIVITY	QUALITY REQUIREMENTS	INSPECTION REQUIRED	TESTING REQUIRED	FREQUENCY REQUIRED	RECORD DOCUMENTS	VERIFICATION REQUIRED BY
1.0	Materials Supply						
1.1	Concrete Supply	AS 1379 / AS 3600	QA System in place as required	As per AS / Specification	Client requirement	Supplier's QA Test Results	Contract Engineer
1.2	Reinforcement Supply	AS 4671 / AS 3600	QA System in place as required	By Supplier	Every Supply	Proof of Supplier QA System	Contract Engineer
2.0	Pile Setout						
2.1	Survey	By Hunter Alliance					
3.0	Excavate Pile						
3.1	Set up rig on position	Centre of drills is +/-75mm from pile centreline	Check position	Previously pegged pile position	Each pile	Daily Piling Report and Checklist	Piling Supervisor
3.2	Set up drill string	Drill string vertical within 2%	Check verticality	Check vertically with spirit level	Each pile	Daily Piling Report and Checklist	Piling Supervisor
3.3	Drill to design depth	Base at Pier at Spec. R.L	Check depth	Measure depth from bench mark	Each Pile	Daily Piling and Report Checklist	Piling Supervisor
4.0	Geotechnical Inspection	By Hunter Alliance					
5.0	Reinforcement						
5.1	Fabrication	Materials correct, dimensions correct, lies adequate,	Spot checks daily	Check dimensions with tape	Each cage fabricated	Daily Piling Report and Checklist	Piling Supervisor
5.2	Placing	Position correct, spacers, cover as specified	Check position and level	Check dimensions with tape	Each pile to be poured	Daily Piling Report Checklist	Piling Supervisor
6.0	Concreting						
6.0	Concrete Delivery	Check delivery docket Confirm ordered grade	Sight and sign delivery docket	AS 3500	Each delivery	Delivery Docket	
6.1	Concrete workable and suitable for pouring, samples for testing taken	AS 1012 AS 1379	Visual inspection for mix	AS 1379			
6.3	Concrete placed and vibrated correctly	AS 3600 AS 2159	Visual	Each pile	Daily Piling Report and Checklist	Piling Supervisor	

JOB SAFETY & ENVIRONMENTAL ANALYSIS

SWMS No.: Rev A **WORK ACTIVITY:** Installation of Bored Piles with Temporary Casing

ALL PERSONS INVOLVED IN THE WORKS MUST HAVE THE SAFE WORK METHOD STATEMENT EXPLAINED TO THEM PRIOR TO START OF WORKS

Location:				Date: 21/07/2009
Employer:	Wagstaff Piling Pty Ltd	ABN: 26 052 146 488	Date to be Reviewed:	
Personnel Consulted on Development of SWMS:	Daniel Hanus / Ken Roberts		To Be Reviewed By:	Hunter Alliance
Personnel Responsible for Monitoring this Activity:	Wagstaff Piling Supervisor / Project Manager		Reference documents to be consulted and complied with:	OH&S Act 2000, OH&S Regulation 2001; National Code of Practice for the Prevention of Musculoskeletal Disorders from Performing Manual Tasks at Work 2007; Protection of the Environment Operations Act 1997; Excavation Work Code of Practice 2000; Moving Plant on Construction Sites 2004.
Plant and Equipment Required for this Activity:	Piling Rig, Crane, Backhoe, Concrete Pump, Drilling Tools, Barricades, Hole Covers			
Materials Used:	Hydraulic Oil, Diesel Fuel, Cement - MSDS specific to the materials used within the Concrete Mix Design shall be kept on site within the Wagstaff Piling Supervisors manual a all times.			
MSDS Required:	Yes	No		
Personnel Qualifications Required for this Activity:	Crane, Dogman			
Specific Training Required for this Activity:	Wagstaff Piling Pty Ltd 'Plant Specific' Training			

Control Categories Considered (Tick all those considered):	<input checked="" type="checkbox"/> Elimination	<input type="checkbox"/> Substitution	<input checked="" type="checkbox"/> Engineering Controls	<input checked="" type="checkbox"/> Administration (Procedural) Controls
	<input checked="" type="checkbox"/> Personal Protective Equipment			
POSITION 1			SIGNATURE	DATE
We hereby accept this statement and confirm that the documented precautions/ controls will be complied with.	1	SUBCONTRACTOR/WORK SUPERVISOR		
		Name:		

Notes: 1 All signatures must be obtained prior to the commencement of work. Obtain signatures in the order indicated

JOB SAFETY & ENVIRONMENTAL ANALYSIS

SWMS No.: Rev A

WORK ACTIVITY: Installation of Bored Piles with Temporary Casing

Prepared by: Daniel Hanus

Date: 21-07-09

Signature:

PROCEDURE	POTENTIAL SAFETY AND ENVIRONMENTAL HAZARDS <small>(Identify all potential hazards)</small>	RISK SCORE	REFERENCES	MANAGEMENT METHOD <small>(Indicates to be in place in order to manage potential hazard)</small>	HIERARCHY OF CONTROLS	MITIGATED RISK SCORE	PERSON RESPONSIBLE <small>(If applicable management method is applied)</small>
Assessment of on site Personnel prior to commencement of works	Personnel not aware of general hazards or risks	12	WH&S Reg	All personnel to have completed OH & S General Induction or have equivalent approved induction certification.	Procedural	8	Client Supervisor Wagstaff Project Manager All Piling Personnel
Agree SWMS & RA	Personnel not aware of site specific hazards or risks	12	Wagstaff SMP	Client Site specific induction and Traffic Management Plan (where applicable) for specified working area. Piling Supervisor to implement SWMS&RA at the commencement of the Piling activities.	Procedural	8	Piling Supervisor
Plant and Equipment Inspections	Failing equipment causing injury or damage	12		Pre-start Safety Toolbox Meeting and weekly Audit Checklist to be completed. Set up exclusion zones around piling works if necessary.	Procedural	4	Plant Operator

JOB SAFETY & ENVIRONMENTAL ANALYSIS

SWMS No.: Rev A

WORK ACTIVITY: Installation of Bored Piles with Temporary Casing

PROCEDURE <small>(break the job down into steps)</small>	POTENTIAL SAFETY AND ENVIRONMENTAL HAZARDS <small>(what can go wrong)</small>	RISK SCORE	REFERENCES	MANAGEMENT METHOD <small>(Institute to Bell's BCA in order to mitigate potential hazards)</small>	HIERARCHY OF CONTROLS	MITIGATED RISK SCORE	PERSON RESPONSIBLE <small>(to ensure management method is applied)</small>
Working at height	Falling from height	12	WH&S Regs. 321 & 323	Use elevated work platforms where applicable. Safety harness with fall arrester attached to Drill Rig above 2m.	Substitution Engineering	4	Piling Supervisor Rigger
Working around drilled excavations	Piling Personnel falling into drilled excavation Unauthorized Personnel falling into drilled excavation	12		Safety barricades or hole covers to be used at all times. Only Wagstaff personnel to be within exclusion zone of piling works unless authorized by member of piling crew.	Procedural Elimination	4	Piling Supervisor Offsider
Working continuously near piling rig and other heavy equipment.	Unauthorized personnel being hit by plant Failure of plant and machinery Noise, industrial deafness.	12		Protection should be warn whenever a person feels uncomfortable with the noise in the workplace. Only Wagstaff personnel to be within exclusion zone of piling works unless authorized by member of piling crew.	PPE Elimination	1	All Piling Personnel

JOB SAFETY & ENVIRONMENTAL ANALYSIS

SWMS No.: Rev A **WORK ACTIVITY:** Installation of Bored Piles with Temporary Casing

PROCEDURE <small>(from the job down into activities)</small>	POTENTIAL SAFETY AND ENVIRONMENTAL HAZARDS <small>(What could go wrong)</small>	RISK SCORE	REFERENCES	MANAGEMENT METHOD <small>(containing in place in order to manage potential hazards)</small>	HIERARCHY OF CONTROLS	MITIGATED RISK SCORE	PERSON RESPONSIBLE <small>(No explicit management method is applied)</small>
Working in vehicle traffic areas	Personnel being hit by errant vehicles	12		<p>Piling Crew to be aware of varying traffic conditions on site. Refer site specific directions from Client Supervisor.</p> <p>All Piling personnel to wear high visibility vests/shirts and PPE.</p> <p>Surrounding site to be checked prior to moving plant.</p> <p>Minimize the need to cross roadways/access ways by proper set up of equipment on working side of road/access.</p>	<p>Admin</p> <p>PPE</p> <p>Procedural</p>	9	<p>Client Supervisor</p> <p>All Piling Personnel</p>

JOB SAFETY & ENVIRONMENTAL ANALYSIS

SWMS No.: Rev A **WORK ACTIVITY:** Installation of Bored Piles with Temporary Casing

PROCEDURE	POTENTIAL SAFETY AND ENVIRONMENTAL HAZARDS (what can go wrong)	RISK SCORE	REFERENCES	MANAGEMENT METHOD (controls to be in place in order to manage potential hazards)	HIERARCHY OF CONTROLS	MITIGATED RISK SCORE	PERSON RESPONSIBLE (to ensure management method is implemented)
Mobilizing Plant and Equipment to Site & move to drilling activity.	<p>Collisions with oncoming traffic</p> <p>Contact with overhead power or underground services causing electrocution</p> <p>Contact with on site personnel or machinery</p>	15		<p>Prior to establishment on site, Client to locate, protect and/or relocate, if necessary, all underground or overhead services within limits of piling rig operations.</p> <p>Plant and equipment to be offloading in an isolated work area where possible.</p> <p>Piling Crew to be aware of varying traffic restrictions at different locations. Refer site specific directions from Hunter Alliance supervisor and Toolbox meetings.</p> <p>Permit to excavate required from Hunter Alliance.</p> <p>Check area for overhead services prior to rigging up machine.</p> <p>Spotters to be used at all time to observe power lines, services and other hazards.</p> <p>Spotters to ensure rig remains minimum distance of 6m from overhead power at all times.</p> <p>Wagstaff rigs not allowed to work outside nominated areas.</p>	<p>Elimination</p> <p>Admin</p> <p>Client Supervisor</p> <p>Piling Supervisor</p> <p>Piling Crew</p> <p>Procedural</p>	8	

JOB SAFETY & ENVIRONMENTAL ANALYSIS

SWMS No.: Rev A **WORK ACTIVITY:** Installation of Bored Piles with Temporary Casing

PROCEDURE	POTENTIAL SAFETY AND ENVIRONMENTAL HAZARDS <small>(what can go wrong)</small>	RISK SCORE	REFERENCES	MANAGEMENT METHOD <small>[controls to be in place in order to mitigate potential hazards]</small>	HIERARCHY OF CONTROLS	MITIGATED RISK SCORE	PERSON RESPONSIBLE <small>(to ensure management method is applied)</small>
Mobilizing Plant and Equipment to Site & move to drilling activity. (Continued...)	Plant overturning during tracking	15		<p>Client to provide dry, safe, level working platforms, suitable ramps and access for Piling Plant, equipment and material deliveries at each piling location for the duration of the piling works.</p> <p>Experienced operator and/or supervised training operator to assess route before moving rig.</p>	Engineering Procedural	5	Client Plant Operator
Set up in Drill Position	Damage to exiting Services Slewing into on site personnel	12		<p>Experienced operator and/or supervised trainee operator to operate rig.</p> <p>Permit to excavate to be obtained from Client and communicated to the crew before work commences. All services to be located and marked.</p> <p>Offsider to ensure there are no obstructions around the drilling position within the limits of the rig.</p>	Procedural Engineering Procedural	8	Client Supervisor Piling Supervisor Pump Operator

JOB SAFETY & ENVIRONMENTAL ANALYSIS

SWMS No.: Rev A

WORK ACTIVITY: Installation of Bored Piles with Temporary Casing

PROCEDURE	POTENTIAL SAFETY AND ENVIRONMENTAL HAZARDS <small>(What can go wrong)</small>	RISK SCORE	REFERENCES	MANAGEMENT METHOD <small>Controls to be in place in order to manage potential hazards</small>	HIERARCHY OF CONTROLS	MITIGATED RISK SCORE	PERSON RESPONSIBLE
							(to ensure management method is applied)
Drilling Piles	Falling objects Falling into hole Spread of spoil during spin off Dust generation	12		Offsider to coordinate excavation of drill hole and rig movements. Hard hat and eye protection to be worn at all times. Barricades to be used to keep personnel away from hole excavation where practicable. Shoveling around a hole is only to occur when Kelly bar is down the hole. Barricade may be removed when Kelly bar is down the hole. Offsider to insure all on site personnel always keep clear of spin off area.	Procedural PPE	8	Plant Operator Offsider
	Handling drilling equipment while in operation	12		Use palms rather than fingers when guiding locking pins into position. Wear gloves where practicable. Keep tight tolerances on equipment joints. All personnel to work within full view of rig Operator. Only qualified and experienced operator or trainee under supervision to operate drill rig.	Procedural PPE	6	Plant Operator Offsider

JOB SAFETY & ENVIRONMENTAL ANALYSIS

SWMS No.: Rev A **WORK ACTIVITY:** Installation of Bored Piles with Temporary Casing

PROCEDURE <small>(Outline the job down into steps)</small>	POTENTIAL SAFETY AND ENVIRONMENTAL HAZARDS <small>(What can go wrong)</small>	RISK SCORE	REFERENCES	MANAGEMENT METHOD <small>(Controls to be in place in order to mitigate potential hazards)</small>	HIERARCHY OF CONTROLS	MITIGATED RISK SCORE	PERSON RESPONSIBLE <small>(No ultimate management method is passing)</small>
Removal of spoil from drill rig using Backhoe / bobcat	Backhoe/ bobcat, hitting / running over personnel Collision with other onsite traffic	12		Only ticketed competent operator or trainee under supervision to drive Backhoe / bobcat. All onsite personnel to maintain safe working distance from Backhoe / Bobcat during operation. Never walk behind Backhoe / Bobcat during operation.	Admin Procedural	6	Bobcat Operator
Cleaning out pier hole, prior to pouring	Personnel falling down hole	12		All personnel to be behind barricade while cleanout bucket is going down hole and removing spoil/debris	Procedural	6	

JOB SAFETY & ENVIRONMENTAL ANALYSIS

SWMS No.: Rev A **WORK ACTIVITY:** Installation of Bored Piles with Temporary Casing

PROCEDURE (Dwell time / Job down time limits)	POTENTIAL SAFETY AND ENVIRONMENTAL HAZARDS (what can go wrong)	RISK SCORE	REFERENCES	MANAGEMENT METHOD (control(s) to be in place in order to manage potential hazards)	HIERARCHY OF CONTROLS	MITIGATED RISK SCORE	PERSON RESPONSIBLE (to whom management method is assigned)
Concreting Piles	Concrete truck backs over personnel Concrete splash in eyes Pump tip over (if used in underwater pour) Establishment, operation and cleaning of concrete pump Blow out lines at end of day	12	WH&S Regs. Hazardous Substances	Spotter to ensure safe entry to site and positioning on worksite. WP to control trucks on site. Safety glasses to be worn at all times. If contact with skin or eyes, wash immediately. MSDS to be kept at worksite at all times within Wagstaff Supervisors Manual. MSDS to be toolboxed with employees prior to starting work.	Procedural PPE	6	Piling Supervisor Pump Offsider / Linesman

JOB SAFETY & ENVIRONMENTAL ANALYSIS

SWMS No.: Rev A **WORK ACTIVITY:** Installation of Bored Piles with Temporary Casing

PROCEDURE (Brief title / job down into steps)	POTENTIAL SAFETY AND ENVIRONMENTAL HAZARDS (what can go wrong)	RISK SCORE	REFERENCES	MANAGEMENT METHOD (control to be in place in order to manage potential hazards)	HIERARCHY OF CONTROLS	MITIGATED RISK SCORE	PERSON RESPONSIBLE (to ensure management method is applied)	
Installation of reinforcement cages	Cage falling hitting / crushing personnel Collapse of cage Cage welds failing during lifting Personnel falling into hole while positioning cage Cuts on projecting steel	15	AS 2550.1 Canes and Hoists	Store cages within safe access to lifting rig and ensure Offsider and other personnel are clear of rig and cage prior to pitching. Prior to lifting, all cages to be inspected by piling supervisor for quality of cage welding and wiring. Ensure adequate lifting equipment and appropriate lifting techniques are used. Cages to be lifted by choking the main bar below the second spiral. Cages not to be lifted off spiral alone. Delineate lifting area with signage and/or bollards and/or spotter. Tag lines to be used as necessary to control swing of cage. Hole covers to be used until cage is installed.	Procedural	All Piling Personnel	4	Engineering PPE

JOB SAFETY & ENVIRONMENTAL ANALYSIS

SWMS No.: Rev A **WORK ACTIVITY:** Installation of Bored Piles with Temporary Casing

PROCEDURE <small>(unless the job doesn't step)</small>	POTENTIAL SAFETY AND ENVIRONMENTAL HAZARDS <small>(what can go wrong)</small>	RISK SCORE	REFERENCES	MANAGEMENT METHOD <small>(conclude to better plan in order to mitigate potential hazards)</small>	HIERARCHY OF CONTROLS	MITIGATED RISK SCORE	PERSON RESPONSIBLE <small>(the person managing risk method is applied)</small>
Installation and extraction of temporary liners	Liner falling hitting / crushing personnel Personnel falling into hole while positioning cage Cuts on steel	15		Store liners within safe access to lifting rig and ensure Offsider and other personnel are clear of rig and liner prior to pitching. Prior to lifting, liner to be inspected by piling supervisor for quality of liner finish. Ensure adequate lifting equipment and appropriate lifting techniques are used. Delineate lifting area with signage and/or bollards and/or spotter.		4	

JOB SAFETY & ENVIRONMENTAL ANALYSIS

SWMS No.: Rev A

WORK ACTIVITY: Installation of Bored Piles with Temporary Casing

PROCEDURE	POTENTIAL SAFETY AND ENVIRONMENTAL HAZARDS (what can go wrong)	RISK SCORE	REFERENCES	MANAGEMENT METHOD (method to be used in order to manage potential hazards)	HIERARCHY OF CONTROLS	MITIGATED RISK SCORE	PERSON RESPONSIBLE (to ensure management method is applied)
Oxy cutting reinforcement cages to length	Oxy flash Heat burns Unsafe Storage (explosion) Manual handling injury	15	AS 4289 - 1995	Oxy to be fitted with flash arrester. Appropriate gloves and eye protection to be worn at all times. Oxy and Acetylene to be stored separately 3m away from each other per code requirements. Oxy to be moved using a trolley rather than manually handling cylinders.	Engineering PPE Procedural Substitution	10	Piling Supervisor Crew Member using Oxy Acetylene
Hydraulic line bursts	Injured personnel Environmental contamination	6		Ensure a spill kit is available to manage any hydraulic oil spills. Maintain all hoses appropriately and regularly check for wear. All personnel to wear appropriate PPE to prevent contact with eyes and skin.	Procedural PPE	2	Piling Supervisor

JOB SAFETY & ENVIRONMENTAL ANALYSIS

SWMS No.: Rev A

WORK ACTIVITY: Installation of Bored Piles with Temporary Casing

PROCEDURE <small>(break the job down into smaller)</small>	POTENTIAL SAFETY AND ENVIRONMENTAL HAZARDS <small>(potential harm to workers)</small>	RISK SCORE	REFERENCES	MANAGEMENT METHOD <small>(control ID to be implemented in order to mitigate potential hazard)</small>	HIERARCHY OF CONTROLS	MITIGATED RISK SCORE	PERSON RESPONSIBLE <small>(to ultimate management method if required)</small>
Oil and fuel spills	Environmental Contamination	3		All electrical equipment and running engines to be stopped / disconnected and all other ignition sources to be eliminated. Warn personnel away from vicinity of spill.	Procedural	2	Piling Supervisor
Environmental Checks	Distribution of weeds and fire ants	4		Ensure a spill kit is available to manage any hydraulic oil spills. Maintain all hoses appropriately and regularly check for wear.	Vehicle / Plant Inspection Report completed. Plant Protection Act 1989 Land Protection Management Act 2002	Admin Procedural	Piling Supervisor Plant Operators
Corrective action to SWMS	Ongoing injuries	9		Supervisors / Manager to revise and communicate through WP Tool Box meetings.		1	Project Manager Piling Supervisor

JOB SAFETY & ENVIRONMENTAL ANALYSIS

SWMS No.: Rev A

WORK ACTIVITY: Installation of Bored Piles with Temporary Casing

Review No.	A	B	C	D	E	F	G	H
Name & Initials	DH							
Date	21/07/2009							

We, the undersigned, confirm that the SWMS nominated above has been explained and its contents are clearly understood. We also confirm that our required qualifications to undertake this activity are current. We also clearly understand that the controls in this SWMS must be applied as documented; otherwise work is to cease immediately.

NAME	QUALIFICATION REQUIRED FOR THIS ACTIVITY	SIGNATURE	DATE	TIME	EMPLOYER
					Wagstaff Piling Pty Ltd
					Wagstaff Piling Pty Ltd
					Wagstaff Piling Pty Ltd

Date: 21/7/09

Name: Daniel Hans

Signature: DH

Australian owned



and proud of it!



20 July 2009
208324 / 089N

Wagstaff Piling Pty Ltd
A.B.N. 26 052 146 488
Civil Engineers
and Piling Contractors

Hunter Alliance
PO Box 164
Broadmeadow NSW 2922

Attention: Mr. Sunny Singh

Telephone: (02) 4910 7715
Faxsimile: (02) 4979 9988

Dear Sir,

**Re: Minimbah Bank Third Track
Piling Works**

We confirm that *Hunter Alliance* will action the following in accordance with our Safety Guidelines and agreed General Working Conditions prior to our commencement on site:

1. All services including, but not limited to, underground and overhead services, water mains, stormwater lines, sewer line, gas lines, power cables, communication cables and Telstra / Optus cables are to be accurately located, protected and relocated by others prior to our establishment to site.
2. It is a requirement of our Safe Working Procedures that we administer a "no-go zone" of 15 metres radius around our piling equipment. This safety requirement is to be included in your Site Safety Induction for all contractors on site. Where this is not possible (e.g. adjacent to the site boundary) a Site Specific Toolbox Meeting should be held to assist *Hunter Alliance* to control the risk.
3. Traffic management plans are to be provided by *Hunter Alliance* to the appropriate authorities, which enables us to work safely on this site.
4. Traffic / public control, safety barriers, lighting, protection of streets and existing structures is in place.
5. The client is to provide dry safe level working platforms, suitable ramps and access for our piling plant, equipment and material deliveries at each pile location for the duration of the piling works. Any area handed over to us for work which has been prepared by others will be deemed to comply with the above. We will not be responsible for reinstating any platform or working surface.
6. In the absence of an agreed subcontract document, signed by both parties at the time of mobilisation to site, we shall be working under the terms of our tender.

Please sign in the space provided below and return to us as requested, alternatively please contact the undersigned immediately to discuss and resolve.

Yours faithfully
Wagstaff Piling Pty Ltd

Daniel Hanus

Please sign below and fax back to Wagstaff Piling Pty Ltd on 02 9622 7133 in acknowledgement of receipt and your action of the above safety issues.

Signed :

Date:

Company:



CERTIFIED QUALITY
MANAGEMENT SYSTEM
AS/NZS ISO9001

QUEENSLAND: Head Office
PO Box 117,
Ashgrove 4060
Tel 61(0)7 3366 2555
Fax 61(0)7 3366 5608

VICTORIA / TASMANIA
PO Box 470,
Port Melbourne 3207
Tel 61(0)3 9646 7500
Fax 61(0)3 9646 7799

NEW SOUTH WALES
PO Box 966,
Kings Langley 2147
Tel 61(0)2 9622 7099
Fax 61(0)2 9622 7133

WESTERN AUSTRALIA
PO Box 117,
Ashgrove 4060
Tel 61(0)7 3366 2555
Fax 61(0)7 3366 5608

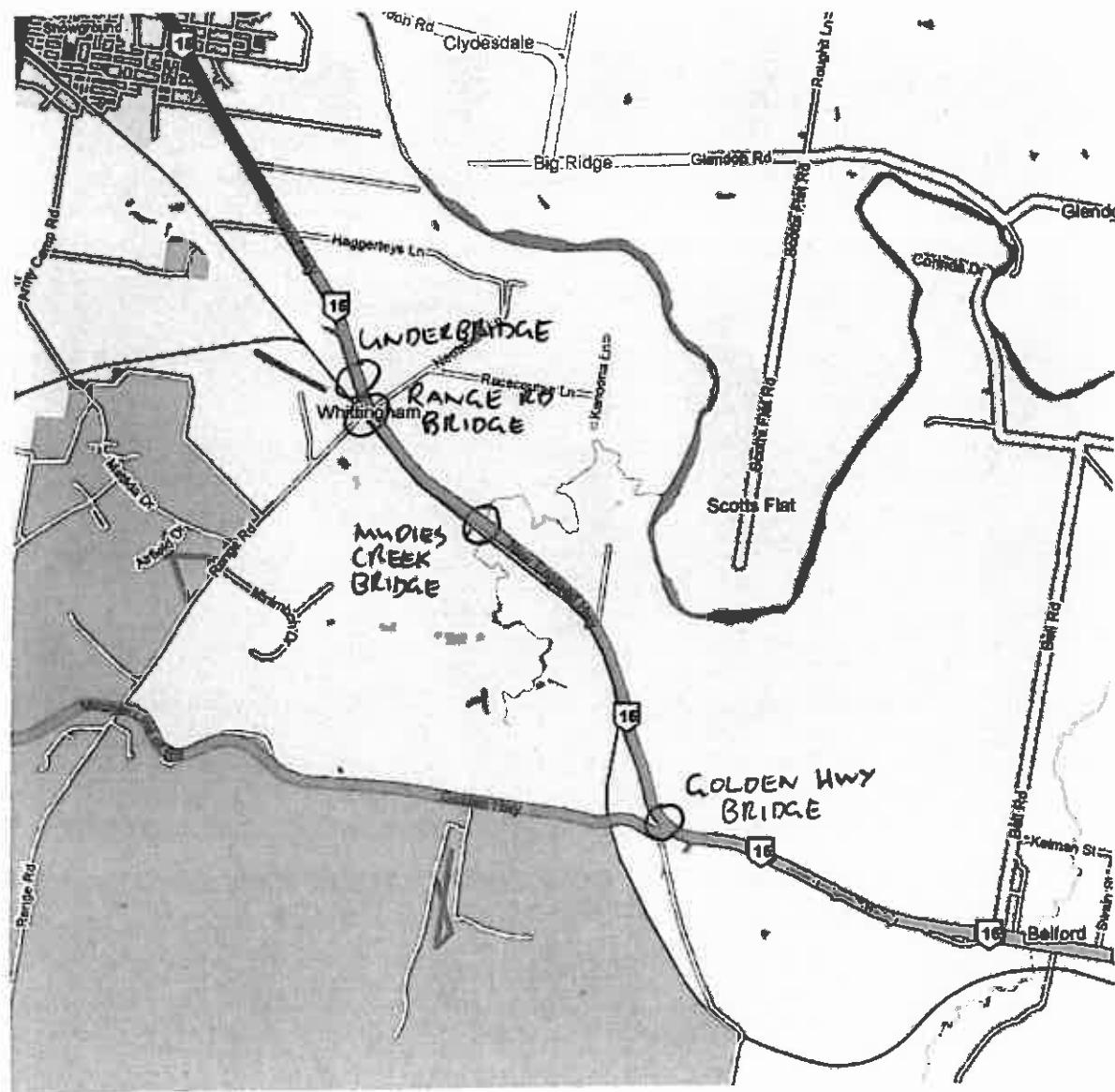
SOUTH AUSTRALIA
PO Box 470,
Port Melbourne 3207
Tel 61(0)3 9646 7500
Fax 61(0)3 9646 7799

Form WP-MSF-03-12 (VIC/NSW) Reviewed 10/08/04

Wagstaff Piling Project Location Map

Job Name:	Minimbah Bank, Third Track	Job No:	<u>089N</u>
Piling Supervisor:	<i>QLD supervisor</i>	Mobile:	TBA
Project Engineer:	<u>Daniel Hanus</u>	Mobile:	0438 135 779
Workshop:	Peter Brett	Mobile:	0447 161 051 or (02) 9622 4088
Client:	Hunter Alliance		
Client Contacts:	Alex Daffy (Senior Project Engineer)	Phone:	(02)
		Mobile:	0417 751 601
		Fax:	(02) 4979 9988

Address: - New England Hwy, Singleton (4No. Bridges)



SITE MANAGEMENT PLAN

2. Administration

Australian owned

 and proud of it!



1 July 2009

Wagstaff Piling Pty Ltd
 A.B.N. 26 062 146 488
 Civil Engineers
 and Piling Contractors

INSURANCE

Public & Product Liability

Insurance Co: SRS Underwriting Agency
 Policy No: SRS5548M05/5050/1
 Expiry Date: 30 June 2010
 Cover Value: \$50,000,000

Professional Indemnity

Insurance Co: Dexta Corporation Limited
 Policy No: 00043549
 Expiry Date: 30 June 2010
 Cover Value: \$10,000,000

Workers Compensation

Queensland

Insurance Co: WorkCover Queensland
 Policy No: WAA910747811/BNED
 Expiry Date: 30 June 2010
 Cover Value: Unlimited

New South Wales

Insurance Co: QBE Worker's Comp.
 Policy No: 1SF M008215 GWC 154
 Expiry Date: 30 June 2010
 Cover Value: Unlimited

Victoria

Insurance Co: QBE Worker's Comp.
 Policy No: 05417711
 Expiry Date: 30 June 2010
 Cover Value: Unlimited

Motor Vehicles

Insurance Co: Zurich Australia Insurance Limited
 Policy No: 432946588VFT
 Expiry Date: 30 June 2010

Contractors Plant & Equipment

Insurance Co: Zurich Australia Insurance Limited
 Policy No: 432946588VFT
 Expiry Date: 30 June 2010

Building Services Authority

Licence No. 62006
 Expiry Date: 24/11/09

TAXATION

Income Tax File No

89 265 571

Australian Company Number (ACN)

052 146 488

Australian Business Number (A B N)

26 052 146 488

BANKING

Wagstaff Piling Pty Ltd

Bank: Westpac
 Branch: Ashgrove
 BSB: 034-034
 Account: 931118

Wagstaff Piling Qld Pty Ltd

Bank: Westpac
 Branch: Ashgrove
 BSB: 034-034
 Account: 137828



CERTIFIED QUALITY
 MANAGEMENT SYSTEMS
 AS/NZS ISO 9001

QUEENSLAND: Head Office
 PO Box 117,
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 Port Melbourne 3207
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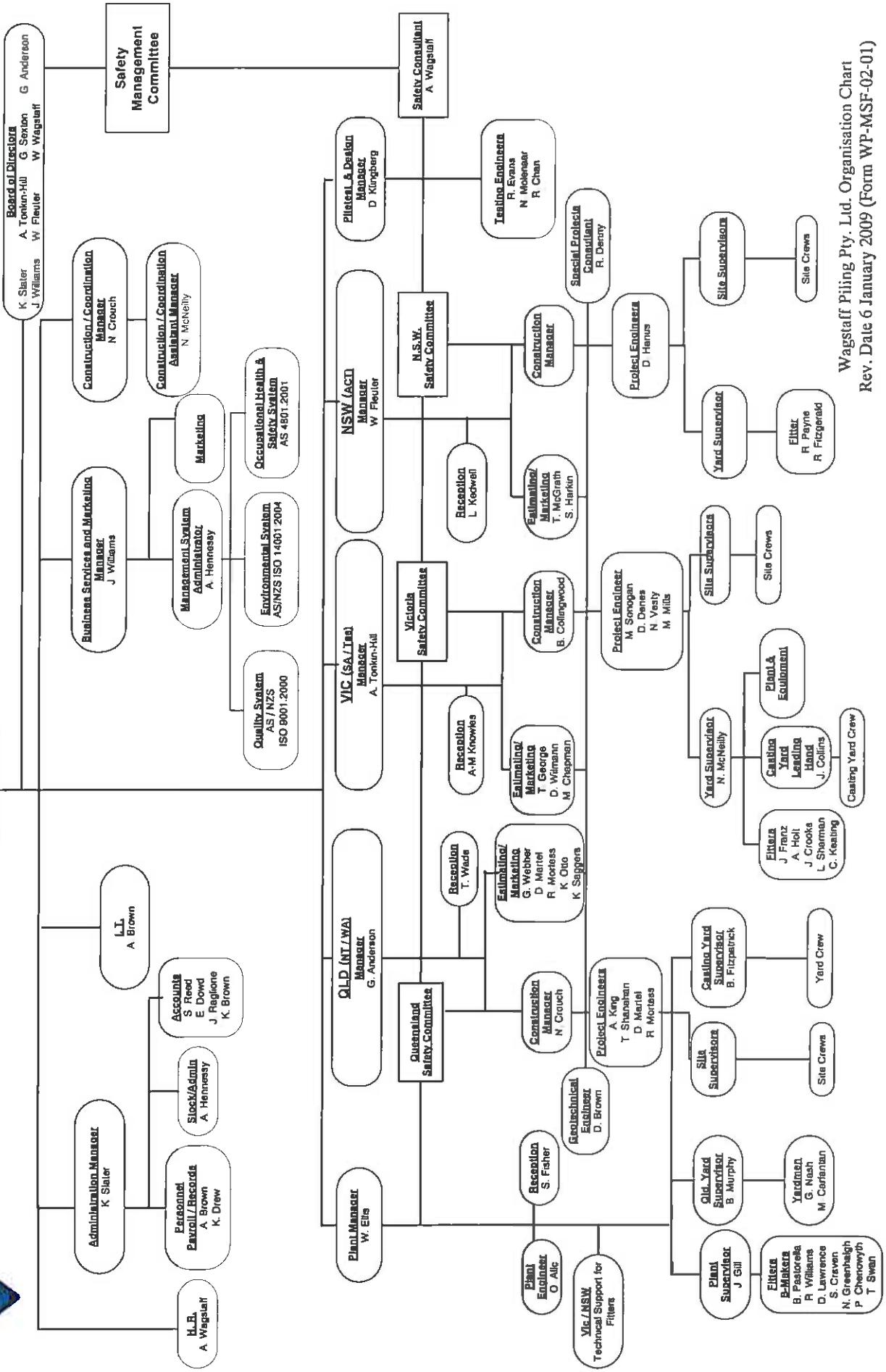
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 Fax 61(0)7 3368 8608

SOUTH AUSTRALIA
 PO Box 470,
 Port Melbourne 3207
 Tel 61(0)3 9646 7500
 Fax 61(0)3 9646 7799



Mengenlehre Direkt





CORPORATE O H & S POLICY

(Reviewed 6 January 2009)

Wagstaff Piling Pty Ltd is a specialist Foundation and Civil Engineering Design and Construct contractor operating throughout Australia. The company is committed to ensuring that the well-being of people employed at work, or people affected by our work, is a major priority and must be considered during all work performed on our behalf.

People are our most important asset and their health and safety is our greatest responsibility. The public and our clients shall be given equal priority to that of our employees.

The objectives of our Corporate O H & S Policy are:

1. To implement a Health and Safety Management System that not only meets all statutory and industry health and safety requirements, but also aims to achieve best practice and provide a safe work environment for all our employees.
2. To achieve an accident free workplace.
3. To make health & safety an integral part of every position.
4. To ensure health & safety is considered in all planning and execution of work activities.
5. To involve our employees in the decision making processes through regular communication, consultation and training.
6. To provide a continuous programme of education and learning to ensure that all employees realise that safe work practices are the responsibility of each employee and that they need to consider their own safety and that of others before they act.
7. To identify and control all potential hazards in the workplace through hazard identification and risk analysis.
8. To ensure potential accident/incidents are controlled and prevented.
9. To ensure that employees are not expected to perform work that they reasonably consider to be unsafe
10. To provide effective injury management and rehabilitation for all employees.

SAFETY IS OUR FOUNDATION.

A handwritten signature in black ink, appearing to read "John P. Wagstaff".

**John P. Wagstaff,
Managing Director**



CORPORATE MEDICAL FITNESS, DRUGS & ALCOHOL POLICY

(Reviewed 19 March 2009)

Wagstaff Piling Pty Ltd is a specialist Foundation and Civil Engineering Design and Construct contractor operating throughout Australia. The company is committed to ensuring that the well-being of people employed at work, or people affected by our work, is a major priority and must be considered during all work performed on our behalf.

People are our most important asset and their health and safety is our greatest responsibility. The public and our clients shall be given equal priority to that of our employees.

The objectives of our **Corporate Medical Fitness, Drugs & Alcohol Policy** are:

1. To take a proactive role in ensuring that all our employees are in good health and medically fit to undertake the tasks assigned to them by conducting Pre-Start and periodical medical testing, in accordance with the Corporate Medical Fitness, Drugs & Alcohol Procedure.
2. To achieve an incident free workplace.
3. To implement a Corporate Medical Fitness, Drug & Alcohol programme that not only meets the appropriate Australian Standard(s), but also aims to meet best practice and provide a safe and healthy work environment for all our employees.
4. To have in place a clear and understandable procedure which outlines what actions will be taken should an employee be declared unfit for work as a result of a medical test.
5. To provide a programme of counselling and / or rehabilitation, if necessary, to help a medically unfit employee to return to health, in accordance with the Corporate Medical Fitness, Drugs & Alcohol Procedure.
6. To take a proactive role in ensuring that all our employees are in good health and medically fit to undertake the tasks assigned to them.
7. To ensure that all employees maintain their good health through the promotion of continual education and training both in the workplace and at home.

SAFETY IS OUR FOUNDATION.

A handwritten signature in black ink, appearing to read "John P. Wagstaff".

John P. Wagstaff,
Managing Director



CORPORATE QUALITY POLICY

(Reviewed 5 January 2009)

Wagstaff Piling Pty Ltd is a specialist foundation and civil engineering contractor operating throughout Australia. The Company is committed to providing professionally and technically competent personnel at all levels of the organisation to provide our customers with the best foundation systems for their projects.

The objectives of our **Corporate Quality Policy** are:

1. To provide to each of our customers a service and / or product which meets or exceeds the specified or implied standard of quality.
2. To operate a Quality Management System to Australian Standard AS/NZS ISO 9001:2000 which will control quality at all levels throughout the Company.
3. To promote Quality and Service as being the responsibility of each and every employee.
4. To encourage individual initiative in achieving performance with quality.
5. To constantly seek to improve our Quality Management System and the service we provide to our customers.

A handwritten signature in black ink, appearing to read "John P. Wagstaff".

John P. Wagstaff,
Managing Director



CORPORATE ENVIRONMENTAL MANAGEMENT POLICY

(Reviewed 5 January 2009)

Wagstaff Piling Pty Ltd is a specialist foundation and civil engineering contractor operating throughout Australia. The Company is committed to providing professionally and technically competent personnel at all levels of the organisation to provide our customers with the best foundation systems for their projects.

The objectives of our Corporate Environmental Management Policy are:

1. To provide in all areas of operation a service and or product which complies with environmental regulations.
2. To operate an Environmental Management System to Australian Standard AS/NZS/ISO 14001:2004 which will control Environmental Management at all levels throughout the Company.
3. To promote Environmental Management as being the responsibility of each and every employee.
4. To encourage individual initiative in achieving performance with Environmental Management.
5. To constantly seek to improve our Environmental Management System and the service we provide in order to exercise due diligence in relation to the Environment.

A handwritten signature in black ink, appearing to read "John P. Wagstaff".

John P. Wagstaff,
Managing Director



CORPORATE EQUAL OPPORTUNITY POLICY

(Reviewed 5 January 2009)

Wagstaff Piling Pty Ltd is a specialist foundation and civil engineering contractor operating throughout Australia. The Company is committed to providing professionally and technically competent personnel at all levels of the organisation to provide our customers with the best foundation systems for their projects.

The objectives of our **Corporate Equal Opportunity Policy** are:

1. To provide the basis for ongoing improvements in employment procedures and initiatives for all employees.
2. To promote a culture that provides workplaces that are free from discrimination, victimisation, vilification, harassment and abuse.
3. To ensure that all employees have equal access to employment opportunities within the workplace.
4. To treat all employees fairly and with respect.
5. To review employment practices to ensure flexibility in accommodating the changing needs of our employees and our workplace

A handwritten signature in black ink, appearing to read "John P. Wagstaff".

John P. Wagstaff,
Managing Director



CORPORATE REHABILITATION POLICY

(Reviewed 5 January 2009)

Wagstaff Piling Pty Ltd is a specialist foundation and civil engineering contractor operating throughout Australia. The Company is committed to providing professionally and technically competent personnel at all levels of the organisation to provide our customers with the best foundation systems for their projects.

The objectives of our **Corporate Rehabilitation Policy** are:

1. To ensure early commencement of workplace rehabilitation in accordance with medical advice.
2. To establish rehabilitation as the normal practice following injury, and that return to work as soon as possible is the normal expectation.
3. To provide time limited suitable duties
4. To ensure a mechanism exists for consultation with workers in regard to rehabilitation.
5. That workers will not be disadvantaged by participation in workplace rehabilitation.
6. That the rights and confidentiality of workers are respected.

A handwritten signature in black ink, appearing to read "John P. Wagstaff".

John P. Wagstaff,
Managing Director

SITE MANAGEMENT PLAN

3. Safety Management



Workplace Accreditation

Certificate

This is to certify that

Wagstaff Piling Pty Ltd

has successfully developed
**Workplace Rehabilitation
Policy and Procedures**

approved under the
Workers' Compensation and Rehabilitation Act 2003

A handwritten signature in black ink.

30 November 2007

Chief Executive Officer

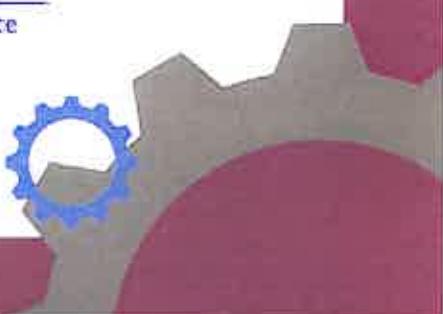
Date Awarded

693

30 November 2010

Workplace Rehabilitation
Accreditation Number

Expiry Date





Safety and Environmental Authority and Responsibility (NSW Projects)

Manager (Bill Fleuter)

Bill Fleuter, Project Engineers and Piling Supervisors are the key personnel for the success of the Company's Health, Safety & Environment Program in N.S.W., and they have the responsibility for the implementation and administration of the management system.

John Williams, Wagstaff Piling's Business Services and Marketing Manager, will have specific responsibility for:

- **Planning for Health and Safety**
 - a. Develop an overall Health, Safety and Environment Plan and management strategy for the workplace, using the Company's Policy and Procedures.
 - b. Develop, where necessary, detailed procedures for the safe performance of work and review these procedures for adequacy.
 - c. Ensure all necessary plant and equipment is provided to enable work to be carried out safely, ensuring such plant is maintained to the manufacturer's specification by qualified persons.
- **Project Engineers**
(Tim McGrath, Stephen Harkin, Daniel Hanus)
- **Allocating responsibilities for all persons employed at the workplace.**
 - a. Supervisory Personnel
 - b. Contractors, Subcontractors, Suppliers and their employees
 - c. Workers
 - d. Consultants
 - e. Visitors
- **Education and Training**
 - a. Identify training needs of employees and, if necessary, release them to undertake training.
- **Accident/Incident Reporting**
 - a. Establish and maintain necessary records for the recording and reporting of accidents and incidents at the workplace
 - b. Encourage worker participation in reporting hazards/ incidents and with suggestions to reduce accident potential
 - c. Ensure all accidents/incidents are investigated and reported in accordance with Company procedures
 - d. Notify the relevant Authority of all accidents and incidents, as required.



▪ **Establish and Maintain Safety Awareness**

- a. Maintain safety induction training programs
- b. Arrange safety talks, demonstrations , posters, etc to promote safety awareness and display the company's commitment
- c. Investigate methods of minimizing hazards at the workplace and promote interest in the hazard identification and control strategies
- d. Encourage all employees to maintain acceptable standards of health and safety and foster an awareness of health and safety matters
- e. Actively promote and maintain the company's health and safety incentive scheme

▪ **Discipline**

- a. Ensure that appropriate disciplinary action is applied in line with company procedures, where necessary

▪ **Personnel Administrator (Lisa Kedwell)**

Rehabilitation Coordinator

- a. Assist in rehabilitation and ensure that the necessary support is given to the injured worker and his family to enable an early return to work.

▪ **OHS&R Information**

- a. Maintain currency with OHS&R developments and advise staff as appropriate.

▪ **Piling Supervisor**

The Piling Supervisor is directly accountable for the Health and Safety of those persons under his control. His responsibilities are to:

- a. Ensure that correct and safe work and environmental procedures are implemented and adhered to by all persons
- b. Identify and take corrective action to eliminate or control hazardous work conditions, equipment and /or practices.
- c. Ensure acceptable standards of housekeeping are met and maintained as well as ensuring that the necessary facilities are available to ensure good housekeeping
- a. Ensure that Employees are provided with and use appropriate protective clothing and equipment, and are provided with necessary training in the correct use.
- b. Report and investigate all incidents in line with company procedures and ensure that appropriate corrective action is taken.
- c. Participate in and contribute to the effectiveness of health and safety meetings, where applicable.
- d. Ensure that subcontractors adhere to their health, safety and environmental obligations.
- e. Check on all plant and equipment to ensure that appropriate documentation in accordance with company procedures is sighted prior to use.



- f. Keep the workplace well organized and tidy by establishing at the early stages correct laydown areas and rubbish removal.
- g. Set up facilities for First Aid and ensure compliance with the relevant authorities.
- h. Be aware of the existence of Statutory Authority Regulations, Acts and Codes, Licenses and special requirements and comply with Legislation within the field of knowledge.
- i. Conduct and Minute Toolbox meetings.

- **All Wagstaff Site Personnel**

It is the responsibility of all Wagstaff Site personnel to:

- a. Ensure that correct and safe work and environmental procedures are implemented and adhered to by all persons
- b. Identify and take corrective action to eliminate or control hazardous work conditions, equipment and /or practices.
- c. Ensure acceptable standards of housekeeping are met and maintained as well as ensuring that the necessary facilities are available to ensure good housekeeping
- d. Participate in and contribute to the effectiveness of health and safety meetings, where applicable.
- e. Keep the workplace well organized and tidy by establishing at the early stages correct laydown areas and rubbish removal.
- f. Be aware of all Statutory Authority Regulations, Acts and Codes, Licenses and special requirements and ensure adherence.
- g. Attend and participate in Toolbox meetings
- h. Understand, comply with and promote Wagstaff Safety Policies.

Wagstaff Piling Pty Ltd
Material Safety Data Sheets - Supervisor's Manual

MSDS Number	Company	Product Name	Date of original issue	Date of reissue
1	BOC Gases	Acetylene	July 1996	21st July 2005
2	Bri-Chem Supply Ltd	Alcomer 120L	7 February 2002	28 June 2006
3	Pirtek	BioSorb Spill control material	May 2001	August 2005
4	BOC Gases	Compressed Air	July 1996	26th July 2005
5	Xypex Australia	Concentrate	July 1998	September 2005
6	Castrol Australia Pty. Ltd	CRB30 Engine Oil	March 1999	February 2004
7	W. R. Grace	Daracem 100	October 1996	September 2004
8	W.R. Grace	Daracem 19A	October 1995	December 2004
9	W.R. Grace	Daratard GP	September 1997	January 2008
10	Mobil Oil Australia	Diesel Plus	23 July 2002	7th March 2005
11	Mobil Oil Australia	DTE 24 Hydraulic Oil	30 October 2001	12 October 2006
12	MBT (Australia) Pty Ltd	Emaco T920	January 1997	10 October 2005
13	Cyndan Chemicals	Enviro Drysorb	April 2000	March 2005
14	Castrol Australia Pty. Ltd	EPX 80W90 Gear oil	January 1998	8 August 2007
15	MBT (Australia) Pty Ltd	Flow Cable	November 2000	6th October 2005
16	Cement Australia	Fly Ash	November 1994	7th April 2004
17	Grace Australia Pty Ltd	Force 10000D	June 2002	December 2004
18	Candan Industries	INOX Penetrating Oil	March 2002	November 2005
19	Candan Industries	INOX Penetrating Oil (aerosol)	March 2002	November 2005
20	Akzo Nobel	Interzone 485 Grey	September 2001	21 February 2006
21	Akzo Nobel	Interzone 485 Curing Agent	August 2001	21 February 2006
22	Lanotec	Lanolin Based Release Agent RA1	August 2003	March 2005
23	Lanotec	Lanolin Liquid Heavy Duty	August 2003	May 2005
24	Lanotec	Lanolin Type A Grease	August 2003	November 2004
25	Vivacity Engineering Pty. Ltd	Megapoxy H Rapid Set - Part A	September 1996	17 March 2006
26	Vivacity Engineering Pty. Ltd	Megapoxy H Rapid Set - Part B	September 1996	17 March 2006
27	Mobil Oil Australia	Mobilgrease HP 461	20 August 2001	25 October 2006
28	Castrol	MOP Absorption Granules	October 2001	April 2005
29	Fuchs	Mould Oil 9	August 1998	July 2006
30	BOC Gases	Oxygen, compressed	July 1996	29th July 2005
31	Big River Timbers Pty. Ltd.	Plywood (Contains adhesive - U.F. resin)	10 July 2001	March 2005
32	Cement Australia	Portland & Blended Cements	November 1998	2 June 2004
33	Hanson (was Pioneer)	Premixed Concrete	August 1998	September 2004
34	Septone Products	Protecta Grit Hand Cleaner		September 2005
35	Hanson	Quarry Products - Aggregate	August 1994	September 2004
36	Castrol Australia Pty. Ltd	SBX2 Extreme pressure grease	May 2001	March 2006
37	Mobil Oil Australia	SHC 632 Lubricating oil	21 August 2001	30 August 2006
38	Hanson	Silica Sand	August 1998	September 2004
39	Shell Company of Australia	Superplant M (Alvania SDX2)	February 1999	15 November 2004
40	Shell Company of Australia	Tellus Oil 68	September 1998	6 December 2005
41	NL Baroid	Therma-Thin (Alcomer 74L)	August 1999	19 April 2004
42	Unimin Australia Limited	Trubond MW	February 1997	April 2005
43	Australian Bentonite	Trugel 100	June 1996	September 2005
44	Mobil Oil Australia	Unleaded petrol	June 1998	20 May 2008
45	Hi-Tec Oils	Gear Oil 80W90	February 2007	

WAGSTAFF PILING JOB SAFETY RISK ASSESSMENT CALCULATOR

The following qualitative risk analysis matrix has been taken from AS/NZS 4360:1999 Risk Management Standard. This matrix is used to arrive at the "Level of Risk" score throughout the JSEA.

Likelihood	Consequences				
	5 Catastrophic	4 Major	3 Moderate	2 Minor	1 Insignificant
5 - Almost Certain	25	20	15	10	5
4 - Likely	20	16	12	9	4
3 - Possible	15	12	9	6	3
2 - Unlikely	10	8	6	4	2
1 - Rare	5	4	3	2	1

(Example: - "Choker chain breaking when lifting piles" - Chance of occurring Rare (# 1).
 Consequence of Occurrence - Death or Permanent Disability (# 5 Catastrophic or # 4 Major) therefore Risk = 5 or 4 Medium to Low Risk.)

Consequence of Occurrence	
5.Catastrophic	Multiple fatalities; Major irreversible health effects; Major widespread, long-term environmental harm to significant environment or eco-system.
4. Major	Single fatality; Serious injury with severe permanent disablement; Serious widespread, medium term environmental harm to local environment, some ecosystem impairment.
3. Moderate	Serious injury with some permanent disablement; Moderate widespread short-term impact on local environment of limited significance.
2. Minor	Medical treatment injury; Short-term reversible disablement; Minor short-term effects on local environment or small area of limited significance.
1. Insignificant	Short-term temporary inconvenience of symptoms; No medical treatment; Environmental nuisance; Limited temporary damage to immediate, low significance environment.

Risk Rating		
16 - 25	Extreme	Work not to commence. Review control measures immediately.
10 - 15	High	Supervisors to ensure all controls are in place before work commences. Strict monitoring of control measures. Work shall be conducted with supervision and/or co-worker, i.e. person involved with activity must not work alone.
5 - 9	Medium	Responsibilities must be defined and understood by those involved before commencing work. Minimal supervision required.
1 - 4	Low	Control by routine procedures.

WAGSTAFF PILING JOB SAFETY ASSESSMENT SHEET

Job:	Job No:	Crew Members present and position:									
	Date:										
	Supervisor :										
Scope of Work:											
Job Steps or Activities	Potential Hazards	Individual Risk Scores		Total Risk		Safety Controls					

A GUIDELINE TO THE DESIGN, CONSTRUCTION & MAINTANENCE OF A SUITABLE SAFE WORKING PLATFORM

PILING & FOUNDATION SPECIALISTS FEDERATION

NOTES ON THE DESIGN, INSTALLATION AND MAINTENANCE OF WORKING PLATFORMS FOR PLANT FOR SPECIALIST FOUNDATION AND GEOTECHNICAL WORKS.

Working Platforms are described as the platform itself and all associated ramps and accesses, i.e. any surface which has to support the construction plant.

The design, installation and maintenance of Working Platforms should be the responsibility of the organisation having continuous control of all the site activities.

It is fundamental to recognise that the design of Working Platforms for specialist foundation and geotechnical plant is a geotechnical design process and that it must be carried out by an appropriately qualified geotechnical specialist designer.

1 INTRODUCTION

1.1

The Safety regulations apply to all aspects of construction, including temporary works. The Working Platform designer's duty is to specify platform installation that will adequately support plant and equipment on the disclosed conditions for the anticipated duration of the work. The contractor responsible for the platform installation is required to build it to the designer's specification and to notify him of any change in ground or groundwater conditions revealed during its installation. The responsibilities and liabilities of all parties will be defined in the relevant contract, and this document in no way extends or effects such responsibilities and liabilities.

1.2

Two European Standards (EN791 and EN 996) contain methods of calculating the distribution of pressures under the machine tracks. The design of reinforced and unreinforced platforms for mean imposed pressures below tracks and from wheel loads is addressed in a CIRIA publication, Special Publication 123.

2 PLATFORM DESIGN, INSTALLATION AND USE PROCESS

2.1

A number of parties are involved in the process of the design, installation and use Working Platforms and it is essential that the roles and responsibilities of all parties are defined and understood.

2.2

The Chart (Appendix 1) defines the process for the design, installation and use of a Working Platform.

2.3

The purpose in defining this process is in order to clarify responsibilities, define operating requirements, the designed platform installation requirements and certify that the platform has been installed as specified.

3 GOOD PRACTICE AND POTENTIAL HAZARDS (Non exhaustive list)

3.1

Adequate site investigation is necessary to enable the platform to be properly designed. A site inspection is essential and it may be necessary to augment available borehole and trial pit information with further investigation. Historical records of site use, demolition records and assistance from local residents may prove helpful.

3.2

Excavations to remove localized soft spots, old foundations and services should be backfilled with well compacted suitable material.

3.3

Deterioration of the exposed formation prior to platform installation should be prevented by drainage or by minimizing exposure to wet and frosty weather. Where deterioration does occur affected material should be removed and replaced with suitably compacted materials prior to placement of the platform.

3.4

The location of existing and abandoned services should be carefully investigated. The working platform level may be dictated by levels of existing underground and overhead services. Markers for these services including overhead barriers where appropriate should be provided and maintained in accordance with the requirements of the relevant service and safety authorities.

3.5

Natural or man-made voids such as cavities in soft rocks, shafts, wells, culverts and basements require special consideration. Measures such as backfilling or grouting may be needed but where these are not possible the void should be clearly marked and isolated from site activity by barriers or other means. These should be carefully maintained during the course of the works.

3.6

If the working platform is near to an existing structure, retaining wall or open excavation, the designer must consider whether any precautions are necessary to avoid excessive movement or instability due to surcharge loading from the equipment to be used. Risk of slurry leakage must also be taken into account.

3.7

Interceptor ditches or grips may be necessary to prevent water or slurry from spilling on to adjacent areas or contaminating water courses.

3.8

Platform strengthening and additional maintenance may be needed where tracked machines have to sprag frequently or where machine access is difficult.

3.9

The level of the platform may be dictated by pile or wall cut-off levels or the height of the projecting reinforcement. The minimum required slurry level in pile or diaphragm wall excavations will also influence the platform level.

3.10

Access ramps should be sufficiently wide and stable to permit safe movement of rigs and cranes and in any event should not be steeper than 1 in 10.

3.11

Special consideration should be given to the pressures from imposed loads by stabilising pads and pads below rig masts, wheeled or skid mounted rigs and other wheeled vehicles.

3.12

The increase in imposed pressures resulting from moving and dynamic loading should be taken into account.

3.13

All empty bores should be backfilled with self compacting, i.e. granular material.

3.14

The edge of the Working Platform must be suitably and clearly identified.

4 FACTORS EFFECTING PLATFORM PERFORMANCE (Non exhaustive list)

4.1

Subsoil and groundwater conditions, particularly those in the upper 3 metres.

4.2

The type of rigs and service cranes used and dynamic or vibratory effects due to their operation.

4.3

The frequency of the passage of service cranes with heavy loads such as cages and casings across the platform.

4.4

The means of transporting concrete to the piles or panels. Concrete trucks may be restricted to allocated routes where the platform has been strengthened.

4.5

The scale of the construction works and their duration.

4.6

The use of geofabrics, placed between the subsoil and the Working Platform to minimise the migration of fine material from the subsoil into the platform material.

5 DESIGN METHOD

5.1

The published references to the design of unpaved roads and pavings which are similar to platforms for piling and diaphragm wall works are relatively few, especially when strengthening layers such as Geogrids are introduced.

5.2

The method reviewed by R.A.Jewell in CIRIA Publication 123, 1996, Soil Reinforcement with Geotextiles, provides one such design method for either reinforced or unreinforced platforms. An ultimate limit state analysis with partial factors applied to soil strength and the Geogrid strength is applied to define the maximum permissible pressures sustainable under tracks of defined width by a given subsoil and a platform of defined thickness and strength. For specific cranes or piling equipment the maximum track pressures can be estimated by static calculation for critical jib positions by methods specified in European Standards EN 791:1995 and EN 996:1996.

5.3

The specialist contractor will provide the Platform Designer with a list of plant and equipment to be used in the piling/diaphragm wall works.

6. PLATFORM MAINTENANCE

6.1

Daily maintenance

6.2

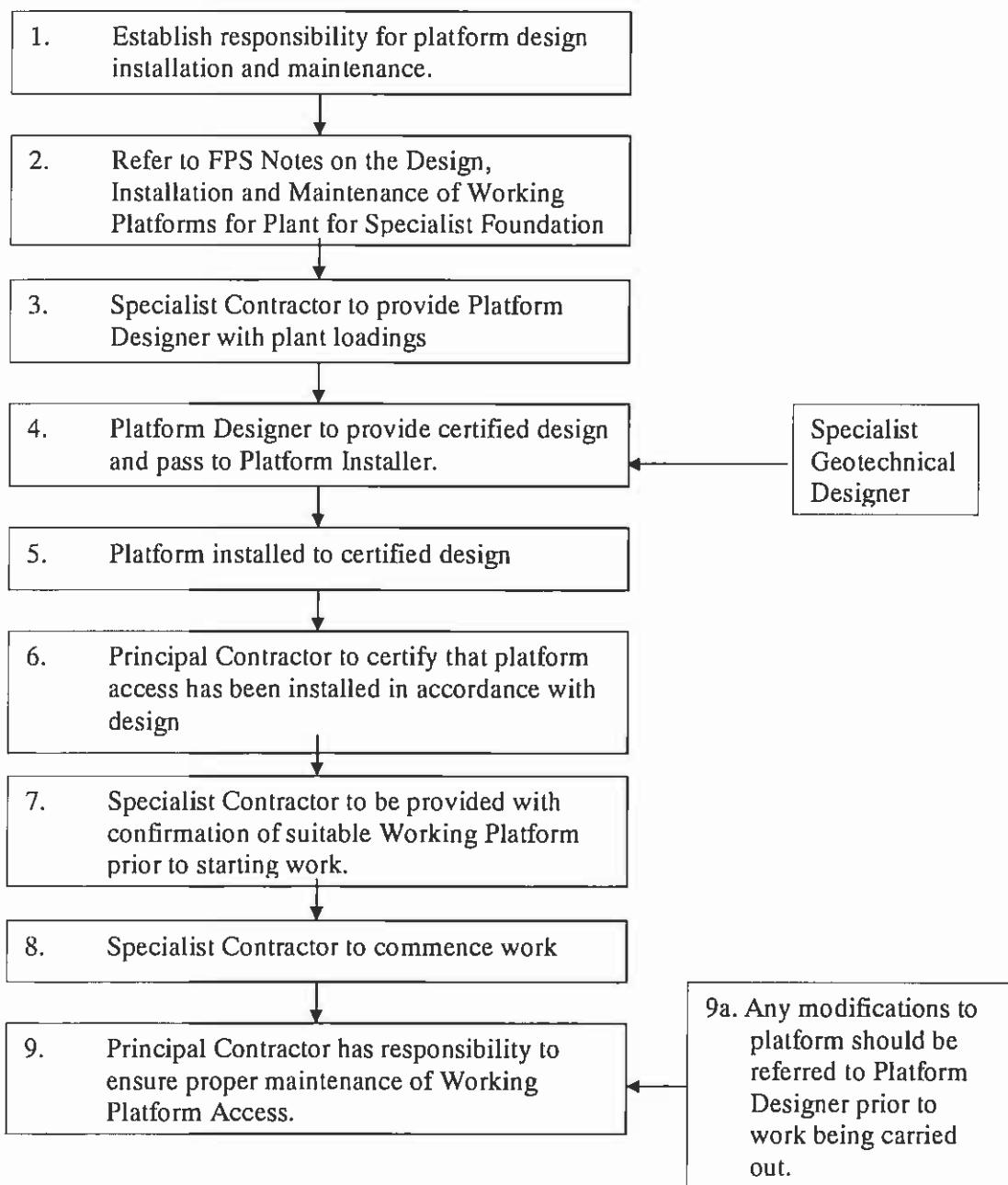
It is paramount that the Plant Platform, Roads and Access must be maintained to their original designed standard. Consequently, any work that changes their condition or causes damage to the Platform must be rectified immediately and the Working Platform reinstated to its original required standard.

6.3

The working platform must be level, firm and well drained and kept in good condition for the duration of the works. Maintenance of heavily trafficked areas such as access routes and ramps require special attention. Suitably graded stable material should be used for both the platform and its maintenance to reduce deterioration due to traffic and weather.

The HSE has worked closely with the FPS to develop the working platform initiative and supports the principle of reducing accidents by the certification of properly designed, prepared and maintained working platforms

APPENDIX 1
WORKING PLATFORMS AND ACCESS ROUTES
TYPICAL PROCESS CHART



WAGSTAFF PILING "SAFETY BULLETIN" REGISTER

DISTRIBUTION : John Wagstaff, Neville Williams, Neville Crouch, Ashley Tonkin-Hill, Rod Campbell, All Supervisors

Bulletin No.	Safety Bulletin Name	Bulletin Content	Date	Date of Issue	Distribution
1 Why Wear Hearing Protection	Noise Exposure / Piling Rigs Noise Levels / Hearing Damage	06/08/1998	07/03/2001	All Field Staff - Attachment to Safety Committee Meeting Minutes No 1/Engineers/Managers	
2 Wagstaff Piling Drugs & Alcohol Policy	Random Testing / Counselling and Rehabilitation	17/02/2000	07/03/2001	All Field Staff - Attachment to Safety Committee Meeting Minutes No 1/Engineers/Managers	
3 UV Radiation Protection	How to Protect Yourself	19/05/2000	07/03/2001	All Field Staff - Attachment to Safety Committee Meeting Minutes No 1/Engineers/Managers	
4 Safe Use of Mobile Phones	Safety Committee Agreement	22/07/1999	07/03/2001	All Field Staff - Attachment to Safety Committee Meeting Minutes No 1/Engineers/Managers	
5 Safe Use of Bobcats	Wearing Seat Belts / Spotters / Skylarking	04/02/2000	07/03/2001	All Field Staff - Attachment to Safety Committee Meeting Minutes No 1/Engineers/Managers	
6 Confined Space Safety	Wagstaff Policy / Regulations	16/02/2001	07/03/2001	All Field Staff - Attachment to Safety Committee Meeting Minutes No 1/Engineers/Managers	
7 Risk Management	Awareness / Behaviour / Actions	27/03/2001	Not Issued as yet		
8 Stay Alive Under Power Line Contact	Emergency Procedure for Electrified Plant	16/04/2001	18/04/2001	All Field Staff - Attachment to Safety Committee Meeting Minutes No 2/Engineers/Managers	
9 Manual Handling	Guidelines for Safe Manual Handling/40KG Cement Bag Warning/Stretches	16/04/2001	18/04/2001	All Field Staff - Attachment to Safety Committee Meeting Minutes No 2/Engineers/Managers	
10 Falls in Construction Work	Prevention of Falls in Construction Work Attachment, Assess risk/ Ladders	13/10/2000	13/10/2000	Victorian Supervisors.	
11 Lifting of Octagonal I PSC Piles	Report incident at Chinderah, Octagonal Piles to be double wrapped	21/06/2001	27/06/2001	All Field Staff - Attachment to Safety Committee Meeting Minutes No 1/Engineers/Managers	
11a Lifting of Octagonal and Round Piles	Analysis of the incident report at Chinderah.	04/09/2001	05/09/2001	All Supervisors/ Operators	
11b Lifting of Octagonal Piles	Clarification of 11 and 11a	06/02/2004	11/02/2004	All Field Staff	
12 Bored Pier Safety Barricades	Incident in Victoria "Crushed Fingers"	03/07/2001	26/07/2001	All Field Staff via wages. All Engineers via internal memo.	
13 Working with Concrete	Potential hazards and preventative measures associated with concrete	03/08/2001	01/08/2001	All Field Staff via wages. All Engineers via internal memo	
14 Crane Operator's Safety	Safe operation of cranes, extract attached from CFMEA/UL safety manual	03/09/2001	12/09/2001	All Field Staff via wages. All Engineers via internal memo.	
15 Pre-Obligation of Workers	Worker Obligation to Work Safely	03/10/2001	03/10/2001	All Field Staff via wages. All Engineers via internal memo.	
16 Safety Alert - Ken Wright	Working safely with Bored Piles	05/11/2001	26/11/2002	All Field Staff - Attachment to Safety Committee Meeting Minutes No 1/Engineers/Managers	
17 Drug and Alcohol Policy	Safety and risk taking of Marijuana	13/02/2002	13/02/2002	All Field Staff via wages. All Engineers via internal memo.	
18 Safety Alert - Near Miss at Holman Sl	Nissa crane @ Holman St Qld, Controls sticking - operator out of cab	28/02/2002	08/03/2002	All Field Staff and Engineers.	
19 Safety Alert - Banuls Hammer Sizes	Banul 1 & 2 limited to 5 tonne hammers & Casting limited to 12 metre piles	13/03/2002	13/03/2002	All Engineers, Supervisors & Operators	
19a Safety Alert - Banuls Hammer Sizes	Amendment A - File length changed from 14m to 12m, 23rd April 2002	23/04/2002	01/05/2002	All Field Staff via wages. All Engineers via internal memo.	
20 Safety Alert - Cranes and Catchforks	Hilatch installing leaders and catchfork - Nolan Site, VIC.	23/02/2002	03/04/2002	All Field Staff via wages. All Engineers via internal memo.	
21 Safety Alert - Grount Hose Connections	Grount hoses connections not fitted with safety pins or locks	13/05/2002	22/03/2002	All Field Staff via wages. All Engineers via internal memo	
22 Safety Alert - Reversing Trucks	Safety procedures when using concrete agitators on site.	29/05/2002	30/05/2002	All Field Staff via wages. All Engineers via internal memo.	
23 Safety Alert - Overheading Winch Ropes	Incidents of rope failure due to incorrect use.	30/05/2002	05/06/2002	All Field Staff via wages. All Engineers via internal memo	
24 Eye Protection - PPE	Responsibility for eye protection while working with grinders, tools etc.	06/06/2002	12/06/2002	All Field Staff via wages. All Engineers via internal memo	
24a Eye Protection - PPE	Wearing Goggles instead of safety glasses while working with grinders, tools etc.	25/06/2002	01/07/2002	All Field Staff via wages. All Engineers via internal memo.	
24b Eye Protection - PPE	Update and clarification of 24 and 24a	05/02/2004	11/02/2004	All Field Staff via wages. All Engineers via internal memo.	
25 Underground Services	Procedures and responsibilities of locating underground services.	12/06/2002	19/06/2002	All Engineers, Supervisors, Operators and Field Staff	
25a Underground/Overhead Services	Dial Before You Dig Process	27/11/2003	03/12/2003	All Engineers, Supervisors, Operators and Field Staff	

WAGSTAFF PILING "SAFETY BULLETIN" REGISTER

DISTRIBUTION: John Wagstaff, John Williams, Neville Crouch, Ashley Tonkin-Hill, Rod Campbell, All Supervisors

Bulletin No.	Safety Bulletin Name	Bulletin Content	Date	Date of Issue	Distribution
26	Safety Alert - Drilling Rigs	6th August, Weld crack failed, Victoria. Check for weld cracks	07/08/2002	13/08/2002	All Engineers, Supervisors, Operators and Field Staff
27	Obligation of Workers, Observations of signals	Incident involving Ken O'Sullivan - Obligation to work safely	14/11/2002	20/11/2002	All Engineers via internal memo
28	Site Management Plan; Method Statements	Communication, Dogman to Operator, Incident Re: Cairns - Barry Schock	02/06/2003	18/06/2003	All Field Staff via wages. All Engineers via internal memo.
29	Shovelling Spoil	Lower back pain injuries - corrective action	15/07/2003	16/07/2003	All Field Staff via wages. All Engineers via internal memo.
30	Bored pile covers and barricades	Incident involving death, Brisbane Construction site.	15/07/2003	16/07/2003	All Field Staff via wages. All Engineers via internal memo.
31	Hitachi KH 180 (116)	Steel Projectile lodged in K. Turner's arm	24/11/2003	26/11/2003	All Field Staff via wages. All Engineers via internal memo.
32	Broken Pile Guide Bolt/Nut Assembly	Bolt holding pile guide onto hammer cage broke and fell approx 12 metres	21/09/2004	29/09/2004	All Field Staff via wages. All Engineers via internal memo
33	Eye Protection - PPE	Andrew Maister struck in eye with piece of concrete whilst drilling	19/09/2004	29/09/2004	All Field Staff via wages. All Engineers via internal memo.
34	Driving Safety	Driving for long periods of time	24/01/2005	25/01/2005	All Field Staff via wages. All Engineers via internal memo.
35	Safe Manual Handling Techniques	Ryan Bartholomew injured while lifting alone	21/01/2005	25/01/2005	All Field Staff via wages. All Engineers via internal memo.
36	Working at Heights	Potential fall from Crane whilst doing maintenance	21/01/2005	25/01/2005	All Field Staff via wages. All Engineers via internal memo
37	NUMBER NOT USED				
38	Machine Working Platforms	Potential platform problems	18/04/2005	19/04/2005	All Field Staff via wages. All Engineers via internal memo.
39	8 Tonnes comes off Pile driver.	Hammer comes off pile driver incident.	18/04/2005	19/04/2005	All Field Staff via wages. All Engineers via internal memo
40	Bobcat Operations	Unsafe safety procedure when using Bobcat	07/09/2005	18/09/2005	All Field Staff via wages. All Engineers via internal memo
41	Driving Safely	Driving long hours is dangerous without a break	19/09/2005	21/09/2005	All Field Staff via wages. All Engineers via internal memo
42	Mobile Phone Use	Mobile Phones are to be switched off during working hours	19/09/2005	21/09/2005	All Field Staff via wages. All Engineers via internal memo
43	Latch Lock Hooks on Lifting Gear	Latch Lock came out while pinching pile	19/09/2005	21/09/2005	All Field Staff via wages. All Engineers via internal memo
44	Loose Plywood Sheets in Pile Driving Hammer	Piece of ply fell out of hammer and struck Atron Portef	16/12/2005	21/12/2005	All Field Staff via wages. All Engineers via internal memo
45	Whip Lines on Machines.	Casagrande C40 Drilling Rig owned by Piling Contractors has overturned.	27/03/2006	29/03/2006	All Field Staff via wages. All Engineers via internal memo
46	Prestressed Piles	A number of near misses while working under hammers	06/08/2006	06/08/2006	All Field Staff via wages. All Engineers via internal memo
47	Machine Instability on Float	Our Hitachi KH180, Plant No. 115, became unusable during the final stages loading.	09/05/2006	10/05/2006	All Field Staff via wages. All Engineers via internal memo.
48	Taking sets on damaged piles	Section of concrete broke away when taking a set on damaged pile.	06/08/2006	06/08/2006	All Field Staff via wages. All Engineers via internal memo.
49	Working Platforms	Working platform not correctly maintained..	27/08/2007	29/08/2007	All Field Staff via wages. All Engineers via internal memo.
50	Hammer Rope Failure while driving steel tubes	The maximum fleet angle of 3 degrees was exceeded.	09/11/2007	14/11/2007	All Field Staff via wages. All Engineers via internal memo.
51	Christopher Harrison: Fall from back of C50	Under investigation	05/11/2007		All Field Staff via wages. All Engineers via internal memo.
52	Diaphragm Wall Cages - Failure during handling	Cages broke whilst being unloaded	07/03/2008	12/03/2008	All Field Staff via wages. All Engineers via internal memo.
53	Circular Saw - Cutting Plywood	Saw protection failed and injured fingers of Cameron Knight	10/03/2008	12/03/2008	All Field Staff via wages. All Engineers via internal memo.



Record of Toolbox Meeting

MEETING DETAILS

PAGE 1 OF _____

ATTENDANCE RECORD

MEETING MINUTES / ACTION

ACTION



Distribution
White Original: To Plant Dept
Blue Copy: You Keep

PLANT MAINTENANCE AND SAFETY CHECKLIST

EXCAVATOR / LOADER / BOBCAT

Mark every item applicable to your machine

Date: _____
Site: _____
Engine Hours: _____

Machine Name: _____
Machine No.: _____
Week: ___ / ___ / ___ to ___ / ___ / ___

DAILY CHECKS BEFORE STARTING

- Engine oil
 - Radiator Water
 - Ignition Light
 - Oil Pressure Light
 - Transmission Oil/Pump Gearbox Oil
 - Hydraulic Oil
 - Parking Park
 - Grease Machine
 - Oil Leaks
 - Lifting Beam
 - Lifting chains (chains to be tested yearly, check tags)
 - Lifting Lugs
 - Drain Air Tanks
 - Operation of Warning Devices

IMPORTANT: PLEASE WRITE IN - JOB No.

WEEKLY CHECKS

- WEEKLY CHECKS**

Engine Hours
Hours Last Service

Has this machine got a safety inspection certificate ?
Certificates are current for 12 months from the date of inspection

When does this certificate expire ? Date / /

Is the Operator's manual in the machine ?

Are you familiar with the Operator's manual and function of this machine ?

Is there a current fire extinguisher in this machine ?

Is the machine clean ?

Brake fluid OK ?

Gauges operating ?

Are all safety devices and latches, etc. working on this machine ?

Free of oil leaks ?

Bucket arm and pins OK ?

Bucket teeth or blade OK ?

Battery water OK ?

Are the engine Vee belts tight and OK ?

Have you filled in this sheet correctly and filled it in the machine log book for this machine ?

Is there any damage to this machine ?

YES NO REMARKS

ITEMS REPAIRED Must be written here.

□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □

SAFETY COMMENTS Report any defects that could effect the safe operation of this machine to your Supervisor and write here. Do not operate machine if you consider it unsafe to do so.

Operator:

SUPERVISOR:



Distribution
White Original: To Plant Dept
Blue Copy: You Keep

PLANT MAINTENANCE AND SAFETY CHECKLIST

G.I.P EQUIPMENT

Mark every item applicable to your machine

SITE: _____

Week: ____ / ____ / ____ to ____ / ____ / ____

DAILY CHECKS

DRILL MOTOR

- Oil Level Drill Motor
- Swivel Connection Condition & Greased
- Hydraulic Connections
- Hydraulic Hoses
- Grout Hoses Connections and Safety Wire
- Grease Sheave

THUR	FRI	SAT	SUN	MON	TUE	WED

GROUT STATION

- Control Functions
- Pressure Gauge
- Air Intake Cleanliness
- Ignition Light
- Oil Pressure Light
- Engine Oil Level
- Hydraulic Oil Level
- Oil Leaks
- Cleanliness of pump and tank

THUR	FRI	SAT	SUN	MON	TUE	WED

IMPORTANT: PLEASE WRITE IN JOB No.

WEEKLY CHECKS

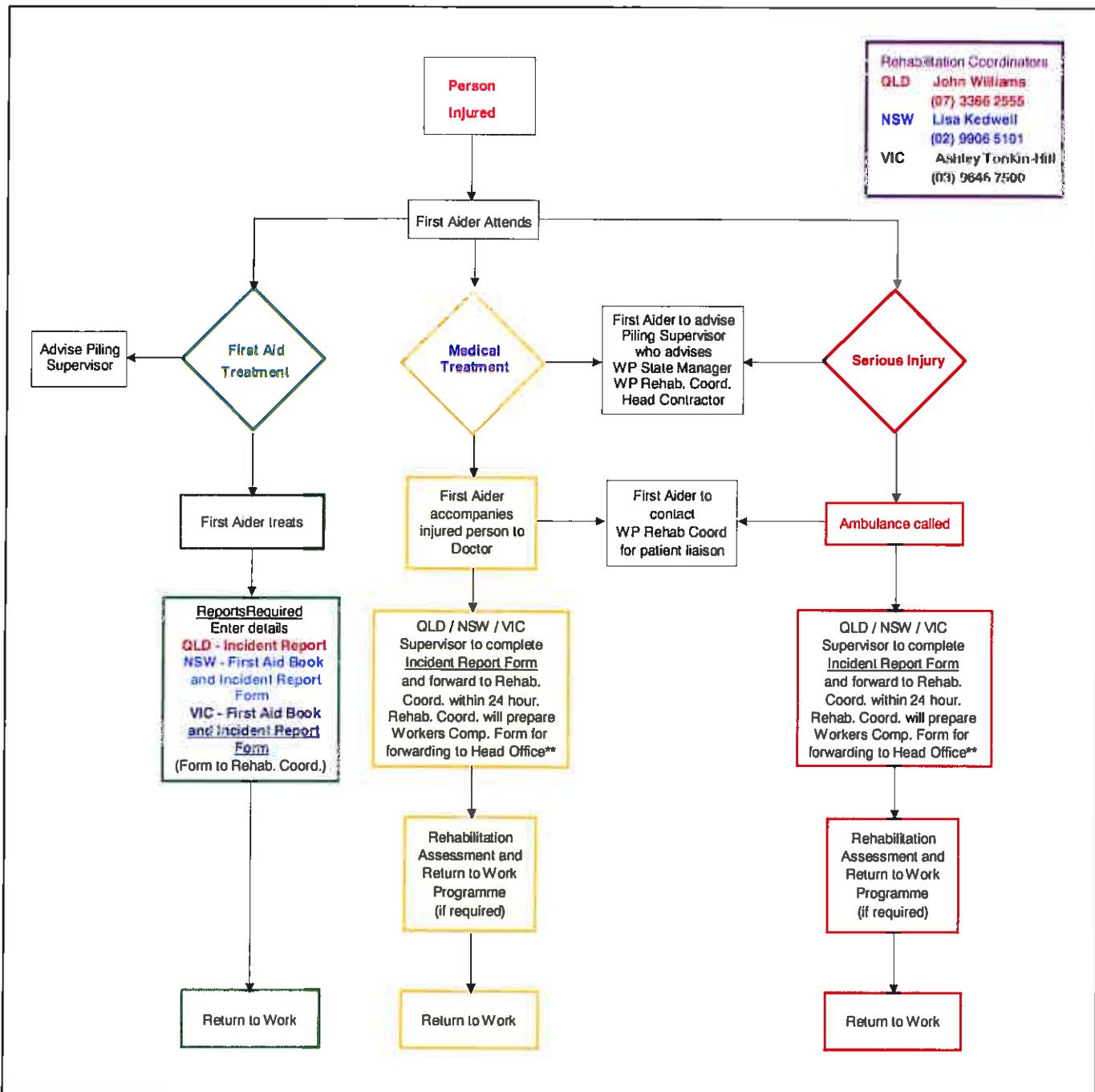
YES NO COMMENTS / DEFECTS

Drill Head:	Sheave Block, Sheaves & Safety Pins	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Engine hours:						
Hours at last service:						

Grout Station:	Valves & seals	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Battery water		<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Terminal connections		<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Alternator belt		<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Pump gearbox oil level		<input type="checkbox"/>	<input checked="" type="checkbox"/>			

REMEMBER TO MOUNT GROUT PUMP ON SLIGHT ANGLE PUMP DOWN		
Grout Hoses:	No. of:	<input type="text"/>
Length:		<input type="text"/>
Condition:		<input type="text"/>
Signature:		<input type="text"/>
Operator:		<input type="text"/>
Supervisor:		<input type="text"/>

Person Injured - What to do



First Aid Treatment:

e.g. small cut; sprain; dust in eye

Medical treatment:

e.g. cut requiring stitches; ligament damage; foreign object in eye

Serious injury:

e.g. broken or crushed limb; unconsciousness; severe lacerations

** All paperwork, including Incident Report Form, to be forwarded to Rehabilitation Coordinator at Wagstaff Piling State Office **as soon as possible**



WAGSTAFF PILING

Incident Report / Preliminary Investigation Report

Report #

Date Received:

Details of Incident: To be completed for all incidents / near misses by Supervisor and forwarded to the State Manager no later than the end of the day on which the Incident / near miss occurs.

Date of Incident: Time of Incident: Incident Reported By: Supervisor:

--	--	--	--

Date Reported: Time Reported: Authorities Notified: Witnesses:

--	--	--	--

Location of Incident:

State Job # Location:

--	--	--

Contractor: Project Name: Equipment / Plant / Substance Involved:

--	--	--

Description of Incident: What happened? Where? Equipment involved? Conditions at the time? Were others involved?

--

Incident Type:

Environmental Property Damage Medical Treatment First Aid Injury Near Miss Event

Note: This investigation is aimed at identifying causes not attributing blame. All investigating personnel should be trained in investigation techniques. A separate form should be completed for each person injured.

Details of Injured Person:

Full Name of Injured Person:	Gender	Date of Birth:
	<input type="checkbox"/> Male <input type="checkbox"/> Female	

Part of Body Injured:

Occupation / Job Title:

--	--

Where was the Injured Person Taken:

<input type="checkbox"/> Hospital	<input type="checkbox"/> Medical Centre	<input type="checkbox"/> First Aid Only	<input type="checkbox"/> No Treatment Required
-----------------------------------	---	---	--

Main Tasks Performed:

Training Provided:

	<input type="checkbox"/> Site Induction	<input type="checkbox"/> Task Specific
	<input type="checkbox"/> Other	<input type="checkbox"/> None

* If Medical / Hospitalisation occurs please ensure appropriate forms are completed & certificates are provided by treating doctor.

Diagram of Incident: (include measurements & photograph if applicable)**Contributing Causes:** (include any particular chemical, product, process, equipment involved)**Corrective Action:** ('Take more care' is not acceptable)**Point Change**

Point Change	Systemic Change
	Change to induction training <input type="checkbox"/> Proposed <input type="checkbox"/> Taken
	Change to ongoing training <input type="checkbox"/> Proposed <input type="checkbox"/> Taken
	Equipment/machinery modifications <input type="checkbox"/> Proposed <input type="checkbox"/> Taken
	Change to work procedures <input type="checkbox"/> Proposed <input type="checkbox"/> Taken
	Change to work environment <input type="checkbox"/> Proposed <input type="checkbox"/> Taken
	Equipment/machinery maintenance <input type="checkbox"/> Proposed <input type="checkbox"/> Taken
	Other job redesign <input type="checkbox"/> Proposed <input type="checkbox"/> Taken
	Other preventive action <input type="checkbox"/> Proposed <input type="checkbox"/> Taken
Person Responsible for Actions	
Date to be completed	

State Managers Comments: ('as above' is not acceptable)**Incident Report completed by**

Signed _____

Print Name _____

Date _____

State Manager

Signed _____

Print Name _____

Date _____



PRE-START SAFETY TOOLBOX MEETING AND WEEKLY AUDIT CHECKLIST

TO BE COMPLETED AT FIRST TOOLBOX MEETING HELD ON SITE AND WEEKLY THEREAFTER.
CONDUCTED BY SUPERVISOR (WITH SUPERVISORS MANUAL) AND SIGNED BY ALL WHO
PARTICIPATE. FORWARD TO ENGINEER AS TOOLBOX MEETING.

PROJECT: JOB No: DATE:

ITEM	YES/NO	DESCRIPTION	COMMENTS/REMARKS <i>Information required if NO</i>
Inductions <i>(Completed by all Staff)</i>	<input type="checkbox"/> <input type="checkbox"/> Site Specific Induction (Main Contractor) <input type="checkbox"/> <input type="checkbox"/> General Safety Induction		
Amenities	<input type="checkbox"/> <input type="checkbox"/> Ablutions <input type="checkbox"/> <input type="checkbox"/> Lunch Room		
Site Security / Signage	<input type="checkbox"/> <input type="checkbox"/> Keep Clear Slewing / Hearing Protection to be worn		
Traffic Control	<input type="checkbox"/> <input type="checkbox"/> Personnel - On Site / Entering & Leaving <input type="checkbox"/> <input type="checkbox"/> Site Accessible		
Emergency Procedures	<input type="checkbox"/> <input type="checkbox"/> Emergency Phone Numbers <input type="checkbox"/> <input type="checkbox"/> Emergency Procedures <i>(As per Site Induction)</i>		
Hazard Reporting	<input type="checkbox"/> <input type="checkbox"/> Hazard Identification <input type="checkbox"/> <input type="checkbox"/> Reporting / Control <input type="checkbox"/> <input type="checkbox"/> Risk Assessment (form provided)		
Fire Equipment	<input type="checkbox"/> <input type="checkbox"/> Fire Extinguisher in place (gauge to show green)		
First Aid	<input type="checkbox"/> <input type="checkbox"/> First Aid Kit complete <input type="checkbox"/> <input type="checkbox"/> First Aid Kit Location <input type="checkbox"/> <input type="checkbox"/> First Aid Book		
Housekeeping	<input type="checkbox"/> <input type="checkbox"/> Rubbish Removal		
PPE	<input type="checkbox"/> <input type="checkbox"/> Head Protection <input type="checkbox"/> <input type="checkbox"/> Foot Protection <input type="checkbox"/> <input type="checkbox"/> Hearing Protection <input type="checkbox"/> <input type="checkbox"/> Eye Protection <input type="checkbox"/> <input type="checkbox"/> Skin Protection, Sun Screen / Hand Cream / Gloves <input type="checkbox"/> <input type="checkbox"/> High Visibility Shirts/Vests <input type="checkbox"/> <input type="checkbox"/> Long sleeve Shirts/ Trousers required		
Hazardous Substances	<input type="checkbox"/> <input type="checkbox"/> Identify Handling, Storage <input type="checkbox"/> <input type="checkbox"/> MSDS Forms (Supervisors Manual)		
Fluid Control	<input type="checkbox"/> <input type="checkbox"/> Grout <input type="checkbox"/> <input type="checkbox"/> Waste Water <input type="checkbox"/> <input type="checkbox"/> Oil / Fuel / Hydraulic Fluid <input type="checkbox"/> <input type="checkbox"/> Clean Up with kitty litter		
Oxy Acetylene	<input type="checkbox"/> <input type="checkbox"/> Storage of Bottles <input type="checkbox"/> <input type="checkbox"/> Protective Equipment - Face Shield / Gloves <input type="checkbox"/> <input type="checkbox"/> Welding Screens		
Services	<input type="checkbox"/> <input type="checkbox"/> Service Clearance Letter sent to Main Contractor <input type="checkbox"/> <input type="checkbox"/> Overhead High Voltage Lines (visual) <input type="checkbox"/> <input type="checkbox"/> Underground Services <i>(Confirm with Main Contractor)</i>		
Excavations Batters Benches / Trenches	<input type="checkbox"/> <input type="checkbox"/> Ground Conditions Inspection <i>(is DCP Testing Req'd)</i> <input type="checkbox"/> <input type="checkbox"/> Bearing Capacity of Piling Platforms.		
Lifting Equipment	<input type="checkbox"/> <input type="checkbox"/> All Lifting Gear Certified & Tagged <i>(confirm)</i> <input type="checkbox"/> <input type="checkbox"/> Slings checked <input type="checkbox"/> <input type="checkbox"/> Chains checked <input type="checkbox"/> <input type="checkbox"/> Wire Ropes checked <input type="checkbox"/> <input type="checkbox"/> Hooks checked		
Plant & Equipment	<input type="checkbox"/> <input type="checkbox"/> Plant Maintenance Checklists <input type="checkbox"/> <input type="checkbox"/> Plant checked - oil leaks/hoses etc		
Piling Rigs	<input type="checkbox"/> <input type="checkbox"/> Hammer Stops used <i>(Mandatory)</i> <input type="checkbox"/> <input type="checkbox"/> Placement of End Caps on Offset Pegs- <i>(Mandatory)</i>		
Handling & Pitching Piles, Cages and Liners	<input type="checkbox"/> <input type="checkbox"/> Lifting of Piles, Cages and Liners <i>(Supervisors Manual Section 4 Work Procedures)</i> <input type="checkbox"/> <input type="checkbox"/> Storage of Piles, Cages & Liners		
Hole Protection	<input type="checkbox"/> <input type="checkbox"/> Barricades & Hole Covers in place <i>(Mandatory)</i> <input type="checkbox"/> <input type="checkbox"/> Hole Protection after completion <i>(agreement with Client)</i>		
Manual Handling	<input type="checkbox"/> <input type="checkbox"/> Assist with mechanical lifting		



PRE-START SAFETY TOOLBOX MEETING AND WEEKLY AUDIT CHECKLIST

ITEM	DESCRIPTION	COMMENTS/REMARKS <i>information required if NO</i>
	YES/NO	
	<input type="checkbox"/> <input type="checkbox"/> Lift correctly <input type="checkbox"/> <input type="checkbox"/> Team Lifting when lifting heavy materials	
Working at Heights	<input type="checkbox"/> <input type="checkbox"/> Work performed 2.4m above ground <input type="checkbox"/> <input type="checkbox"/> Fall Arrestors	
Quality Assurance / Safety Manual	<input type="checkbox"/> <input type="checkbox"/> Contract Quality Plan (Site Specific) checked <input type="checkbox"/> <input type="checkbox"/> Safety Guidelines; in Supervisors Manual (Read by all employees) <input type="checkbox"/> <input type="checkbox"/> Daily Piling Reports <input type="checkbox"/> <input type="checkbox"/> Toolbox Meeting Records <input type="checkbox"/> <input type="checkbox"/> Site Instructions <input type="checkbox"/> <input type="checkbox"/> Non Conformance Reports	
Other (Site Specific)	<i>Please Comment:</i>	

ACKNOWLEDGMENT OF TRAINING :

ATTENDANCE RECORD:

Special comments or recommendations:

Supervisor
Project
Engineer

Rev date:23 January 2007

SITE MANAGEMENT PLAN

4. Quality Management



**Wagstaff Piling Pty Ltd
Head Office
1 Ashgrove Crescent
Ashgrove Qld 4060**

Operates a management system
that complies with the requirements of:

AS/NZS ISO 9001:2000

The Scope of Certification is:

Design, manufacture, installation, construction and testing of foundation systems.
The casting yard is located at Hemmant.

Date of Issue: 28 November 2008
Expiry Date: 31 July 2011
Certificate Number: 7387-11
Certification Number: 7387
Certification Date: 03 June 1996

Craig Johnson
On behalf of the board members





**Wagstaff Piling Pty Ltd
Victorian Office
33 Nott Street
Port Melbourne Vic 3207**

Operates a management system
that complies with the requirements of:

AS/NZS ISO 9001:2000

The Scope of Certification is:

Design, manufacture, installation, construction and testing of foundation systems.
The casting yard is located at Laverton North.

Date of Issue: 2 February 2009
Expiry Date: 31 July 2011
Certificate Number: 7387-14
Certification Number: 7387
Certification Date: 03 June 1996

Greg Dawson
On behalf of the board members



This Certificate remains the property of NCS International Pty Limited ACN 076 859 748
A wholly owned subsidiary of The National Association of Testing Authorities Australia ACN 004 379 748
Accredited by the Joint Accreditation System of Australia and New Zealand (www.jas-anz.com.au/Register)



**Wagstaff Piling Pty Ltd
New South Wales Office
56 Tattersall Road
Kings Park NSW 2148**

Operates a management system
that complies with the requirements of:

AS/NZS ISO 9001:2000

The Scope of Certification is:

Design, manufacture, installation, construction and testing of foundation systems.

Date of Issue: 28 November 2008
Expiry Date: 31 July 2011
Certificate Number: 7387-13
Certification Number: 7387
Certification Date: 05 January 1998

Craig Dawson
On behalf of the board members



DAILY PILING REPORT & CHECKLIST - BORED PILES

WAGSTAFF
PILING

Date: _____ Weather: _____ Machine Type: _____

Concrete Strength: _____ Pile Size: _____

Cover: _____

Specified Tolerances:

Position:

Rake: _____

Job Name:

Job No.: _____

Design Information		Pile Information						Pile R.L.s						Liner R.L.s		As Installed		N.C.R.	Comments
Pile No.	Rake	File Dia.	Drilled Depth	Shaft Length	Socket Length	Concrete Volume	Concrete Stump	Reinforcement Bars	Cage Length	Toe	Cut Off	Toe	Cut Off	Toe	Cut Off	Position	Y/N (No.)		
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
		Total for Today						Previous Total						Running Total					

Start: _____
Finish: _____
No. Crew: _____
Supervisor: _____

Equipment - Hired:
- Off Hired:
Maintenance: _____

Remarks: _____

DAILY PILING REPORT & CHECKLIST

Date: _____
 Weather: _____
 Machine Type: _____
 Hammer: _____

Pile Type/Size: _____ Reinforcement: _____ Position: _____ Job Name: _____
 Shoe Type: _____ Cover: _____ Verticality: _____ Job No.: _____

Specified Tolerances:

Position: _____ Verticality: _____ Rake: _____

Design Information		Pile Sections			Driving Information			As Installed			Comments	
Pile No.	Load Rate (t)	Bottom Lft	Middle Lft	Top Lft	W.L. No./Date	R.L. C.O.L. No./Date	Depths Below W.L.C.O.L.	No. of Blows	Drop Height	Position	Verticality over N.S. E.W.	N.C.R. Y/N (No.)
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												

Total for Today:
 Previous Total:
 Running Total:

Remarks:

Equipment – Hired:
 – Off Hired:
 Maintenance:

Start: _____
 Finish: _____
 No. Crew: _____

Supervisor: _____

DAILY PILING REPORT & CHECKLIST - GROUT INJECTED PILES & CAMPPILES

Date: _____ Weather: _____ Machine Type: _____ Pump No.: _____

WAGSTAFF
PLING

Grout Strength: _____ Cover: _____ Pile Type/Size: _____

Specified Tolerances:
Position: _____ Verticality: _____

Job Name: _____ Job No.: _____

Design Information			Pile Information			Grout			As Installed			Comments			
Pile No.	Load (t)	Rake	Pile Diam.	Reinforcement Bars	Cage Length	Theoretical Volume	Actual Flow	R.L.	C.O.L.	Drilled Length	Below W.L.C.O.L.	Drill Press at Founding Level	Position N.S.	Verticality over Y/N (No.)	N.C.R.
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
								Total for Today							
								Previous Total							
								Running Total							

Start: _____
Finish: _____
No. Crew: _____

Remarks: _____

Equipment - Hired:	
- Off Hired:	
Maintenance:	

Supervisor: _____

Form WP-MSF-09-331 Reviewed 21/08/03



WORK IMPROVEMENT NOTICE [WIN] (replaces Non-Conformance Report [NCR])

- 1** To be completed by WP originator i.e. person raising the action.

Your name <input type="text"/>	Client name <input type="text"/>			
Project name <input type="text"/>	Job No. <input type="text"/>	Date <input type="text"/>		
Choose 1 of these actions:				
<input checked="" type="checkbox"/> Correction (i.e. previously NCR) <input type="checkbox"/> Improvement (e.g. Employee Suggestions) <input type="checkbox"/> Customer Feedback				
Details <hr/> <hr/> <hr/>				
Choose 1	<input type="checkbox"/> Safety	<input type="checkbox"/> Environmental	<input type="checkbox"/> Quality	<input type="checkbox"/> Construction
Choose 1	<input type="checkbox"/> Material / Product Non Conformance	<input type="checkbox"/> Equipment / Property Damage	<input type="checkbox"/> Audit	
<input checked="" type="checkbox"/> Training	<input type="checkbox"/> Staff Suggestion	<input type="checkbox"/> Supplier		

- 2** WP Recommended Action to be taken: (To be completed by the WP Supervisor / Project Engineer / Manager)

Approved by WP Project Engineer / Manager:
Name: _____ Signed: _____ Date: _____

- 3** Client comments on WP recommended action (if required)

Corrective action approved by client:
Client name: _____ Position: _____ Signed: _____ Date: _____

- 4** (a) Suggested Corrective and Preventive Action (to avoid future non-conformances) or (b) Suggested Improvement (to eliminate recurrence of WIN) To be completed by the WP Supervisor / Project Engineer / Manager

Name: _____ Position: _____ Signed: _____ Date: _____

- 5** Follow-up details of (a) Suggested Corrective Action to close out this non-conformance or (b) Suggested Improvement actioned:
Details of (a) or (b) by WP Manager

Close out by WP Manager: _____ Signed: _____ Date: _____

Close out by WP System Manager: _____ Signed: _____ Date: _____

Work Improvement Notice Registered No.: _____
(by WP Systems Manager)

Distribution List: Original to Client, Supervisor or Manager Yellow copy to Job File Blue copy to WIN Records Green copy to Originator

WP-MSF-12-102 Reviewed 26/01/06