Port Hedland Port Authority

Crane and Hoist Operating Procedures

PR - OHS003

Document Users	**:**	**Crane Operator Contractors** **Stevedores** **Vessel Traffic Service Officers** **Safety and Security Advisor** **Senior Safety and Security Advisor** **Operations Officer** **Supervisor Technical Services** **Shipping Superintendent** **Landside Operations Manager** **Manager Technical Services** **Marine Operations Manager** **General Manager Operations**
Position Responsible For Keeping Document Current	**:**	**Senior Safety and Security Officer**
Revision Trigger	**:**	**Annually or significant change**

Revision	Prepared by:	Reviewed by:
1	**DHM**	**HM**
2	**SSSO**	**GMO, MTS, MOM, SS**

DETAILS OF REVISION CHANGES

OLD SECTION REF.	NEW SECTION REF.	DESCRIPTION OF CHANGE
3, 4, 5, 6, 7, 8, 9	Definitions, 3, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9	Section 3 changed to Definitions, Section 4 now Section 3, Section 4.1 – 4.9 are new sections. The whole document was reviewed as a result of a high potential crane roll-over incident.
4.2, 4.2, Appendix 2 & Appendix 3		New section added for Notification of Crane Operations to PHPA. Notification form added as Appendix 2. Helicopter flight path plan added as Appendix 3.

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Note: A copy of this Cranes and Hoists Procedures will be issued to all stakeholders who operate cranes and hoists within the port; and will also be available on the PHPA website.

Table of Contents

1. Introduction 7
2. Scope 7
3. Responsibilities of Operators 7
3.1 Registration 7
3.1.1 PHPA Registration 7
3.1.2 Equipment Compliance and Operating Guidelines 8
3.1.3 Audits 9
3.1.4 WorkSafe Western Australia Registration 9
3.2 Supervisors 9
3.3 Crane and Hoist Operators 10
3.4 Doggers and Riggers 10
4. Crane and Hoist Operations 10
4.1 Notification of Crane Operations to PHPA 10
4.2 Risk and Hazard Management 11
4.2.1 Job Safety Analysis 11
4.2.2 Lift Plan/Study and Lift Methodology 11
4.3 Exclusion Zones 11
4.4 Pick and Carry Cranes 11
4.5 Forklifts 11
4.6 Elevated Work Platforms 11
4.7 Work Boxes/Cages 12
4.8 Wharf Access 12
4.9 Wharf Load Lifting Limits 12
4.10 Legislation 12
5. Incident Reporting 12
6. Breaches of these procedures 13

Table of Figures

Figure 1 - Crane and Hoist Registration Process Flowchart 8

Appendices

Appendix 1 – PHPA Crane Registration Form
Appendix 2 – PHPA Crane Operations Notification Form
Appendix 3 – Helicopter Flight Path Plan

DEFINITIONS

Crane

Means plant that is used for the raising and lowering of a freely suspended load and moving a load horizontally and –

(a) includes the supporting structure of the crane and its foundations;
(b) does not include any industrial lift truck, industrial robot, building maintenance equipment, suspended scaffold or lift.

Hoist

Means an appliance intended for raising or lowering a load or persons and –

(a) includes an elevating work platform, a mast-climbing work platform, a people and materials hoist, a scaffold hoist and a serial hoist;
(b) does not include a lift or building maintenance equipment.

Mast-Climbing Work Platform

Means a hoist having a work platform for the support or raising of personnel, equipment and materials to the working position by means of a drive system which moves along an extendable mast (which may be tied to a building) but does not include a lift or building maintenance equipment

Mobile Crane

Means a crane capable of travelling over a supporting surface without the need for fixed runways or railway tracks and which relies on gravity only for stability.

Regulatory Authority

Means any Commonwealth, State or Territory authority, other than the Commissioner, with responsibility for plant safety.

Work Box

Means a personnel carrying device designed to be suspended from a crane for the purpose of providing a working area for persons elevated by and working from the box.

Certificate of Competency

Means a certificate issued in accordance with the national standard, and includes evidence of a satisfactory assessment referred to in clause 5.22 of the national standard.

Certificated Person

Means a person who is using or operating industrial equipment and holds a certificate of competency to do so.

National Standard

Means the *National Occupational Health and Safety Certification Standard for Users and Operators of Industrial Equipment [NOHSC: 1006 (2001)].*

Dogger

Means a person who holds a certificate of competency as a dogger.

Rigger
Means a person who holds a certificate of competency as a rigger.

Qualified Inspector
Means a representative from the manufacturer, or a professional from a service or organisation who is competent to inspect cranes, hoists and rigging equipment.

Competent Person
Regulation 4.15 of the *Occupational Safety and Health Regulations 1996* specifies that an individual item of plant must be inspected by a competent person and declared safe for use before it can be registered. A competent person is defined in Regulation 1.3 as a person who has acquired through training, qualification or experience or a combination of those things, the necessary knowledge and skills required to do that thing competently.

Act
Means the *Western Australia Occupational Safety and Health Act 1984*.

Regulations
Means the *Western Australia Occupational Safety and Health Regulations 1996*.

1. Introduction

The port Hedland Port Authority (PHPA) has developed these procedures to ensure that all cranes and hoists operating within the port meet all PHPA occupational health and safety requirements, operate in accordance with industry best practice, and to ensure that the operation of all cranes and hoists are compliant with the Western Australia *Occupational Safety and Health Act 1984* and *Occupational Safety and Health Regulations 1996*.

2. Scope

These procedures apply to all cranes and hoists operating within the port seaward of the port security gate. These procedures are applicable at all times, day or night.

3. Responsibilities of Operators

This section outlines the responsibilities for implementation of these procedures during crane and hoist operations within the port.

All operators have the following responsibilities under these procedures:

- To ensure that all personnel are notified of their responsibilities for working with cranes and hoists within the port.
- To ensure that all personnel have received instruction in the operation of cranes and hoists that the person will be operating.
- To ensure that procedures, equipment and materials appropriate for the specific work locations under his/her control are provided to protect the health and safety of all employees.
- To ensure that all personnel comply with PHPA Personal Protective Equipment (PPE) requirements as a minimum standard.
- To ensure that all personnel are given adequate supervision and instruction on the hazards of crane and hoist operations.
- To ensure that the relevant sections of these procedures and the *Occupational Safety and Health Act 1984* are implemented in all facilities under his/her control when operating within the port.

3.1 Registration

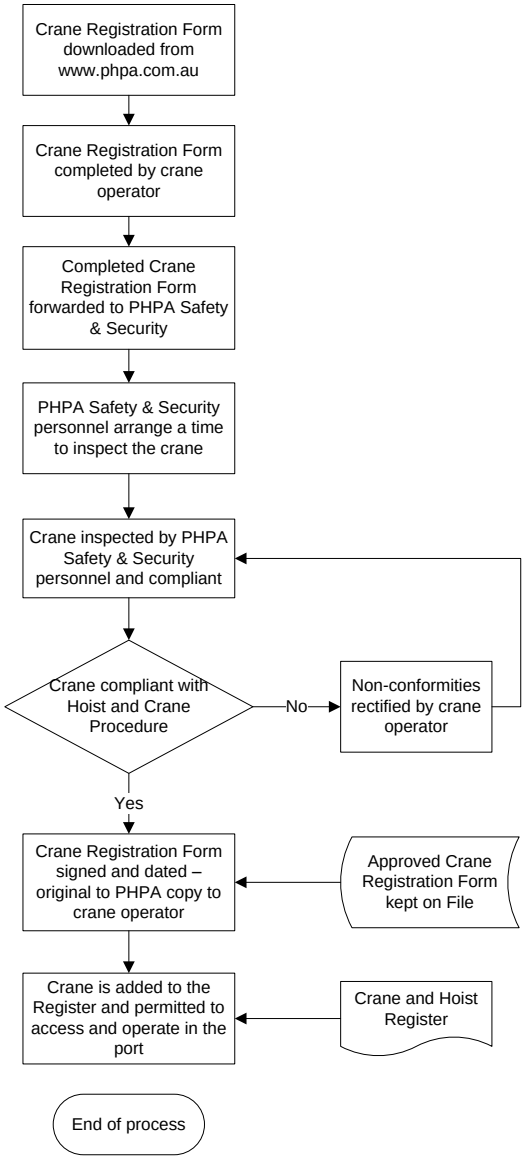
3.1.1 PHPA Registration

All cranes and hoists requiring access to the port must be registered with the PHPA. A minimum of 12 hours notice must be given to the PHPA for cranes to be inspected prior to being registered with the PHPA. Unregistered, unannounced cranes that arrive at the security gatehouse at short notice seeking an inspection to allow the crane to access the port will be refused an inspection and denied access to the port.

A crane or hoist can be registered with the PHPA by completing a PHPA Crane Registration Form. The completed form can be forwarded to the PHPA by fax, email or in person. On receipt of the Crane Registration Form an authorised officer from the PHPA will arrange a time to inspect the crane(s) or hoist(s) to ensure that it is compliant with these procedures. If the crane or hoist is found to be compliant with these procedures then the Crane Registration Form will be signed and dated, which then allows the crane or hoist to access and operate within the port. If on inspection a crane or hoist is found to not be compliant with these procedures, the crane or hoist will be refused access to the

port and the Crane Registration Form not signed and dated until the non-conformities to these procedures have been rectified. All cranes and hoists must satisfy the requirements set out in Section 3.1.2 Equipment Compliance and Operating Guidelines and the Crane Registration Form (Appendix 1). Refer to Figure 1 – Crane and Hoist Registration Process Flowchart.

Figure 1 - Crane and Hoist Registration Process Flowchart



The PHPA will maintain an up to date register for all cranes and hoists registered to operate in the port. The Crane and Hoist Register will be maintained by the Senior Safety & Security Advisor and/or Safety & Security Advisor.

3.1.2 Equipment Compliance and Operating Guidelines

- All slewing cranes must be fitted with an all round red flashing light fitted at the tip of the boom and visible in all directions over an arc of 360°, operating when the boom is

raised from sunset to sunrise and during periods of reduced visibility or adverse weather.

- Supervisors and all cranes to be equipped with UHF radios (portable units acceptable) and/or mobile phones to enable communication between the supervisor and crane operator, and also between the supervisor and Shipping Control Tower.
- Contact details of supervisors or in lieu crane operators to be registered with the Shipping Control Tower prior to commencement of any operations within the port.
- Supervisors to ensure and all crane operators are to be in possession of and strictly adhere to the PHPA Traffic Management Plan.
- All cranes must have timber placed under their outriggers when operating.
- That qualified inspectors have inspected lifting devices, load chains, wire ropes, slings and other accessories periodically in accordance with relevant regulations before being placed in service within the port.
- Operators must maintain a permanent record of all inspections of, tests of, repairs to, modifications to and maintenance of a crane or hoisting device and are in possession of this record of each inspection.

3.1.3 Audits

Spot audits will be undertaken on a regular basis to ensure that cranes and hoists registered with the PHPA continue to be compliant with the requirements of these procedures.

The operators of cranes and hoists that are found to non-compliant with these procedures during spot audits will be required to remove the non-compliant crane or hoist from the port until the non-conformity has been rectified. The crane or hoist will need to be inspected by an authorised PHPA officer to confirm that the non-conformity has been rectified prior to the crane or hoist being permitted to re-enter the port.

3.1.4 WorkSafe Western Australia Registration

All cranes requiring access to the port must be registered with WorkSafe WA as required by the *Occupational Safety and Health Regulations 1996*.

3.2 Supervisors

Supervisors must be competent and have a working knowledge of the hazards and operating procedures associated with working with cranes and hoists under his/her control. Supervisors have the following responsibilities:

- To ensure that personnel are familiar with the hazards and the procedures for working with cranes and hoists.
- To ensure that all employees act in accordance with the operating procedures for cranes and hoists.
- To ensure that all personnel use appropriate equipment and materials for working with cranes and hoists at all times.
- To promptly report any incidents, accidents, near misses or hazards to the Harbour Master by a means established by the PHPA, namely incident / hazard reports. This

may include an initial verbal report to Shipping Control Tower followed up with a written incident report to the Harbour Master within 24 hours of the incident.

3.3 Crane and Hoist Operators

All personnel who operate cranes and hoists within the port must be the holder of a valid High Risk Work Licence for the class of crane and hoist that they will be operating.

Crane and hoist operators have the following responsibilities when operating cranes and hoists within the port:

- To be familiar with the hazards associated with working with cranes and hoists.
- To work in accordance with written procedures and standards for operating cranes and hoists.
- To use the appropriate equipment and materials when working with cranes and hoists in the port.
- To promptly report any incidents, accidents, near misses or hazards to their supervisor and/or the Shipping Control Tower.

3.4 Doggers and Riggers

All personnel who perform dogging and rigging as part of a crane / lifting operation within the port must be the holder of a valid High Risk Work Licence for the task they are performing.

Doggers and Riggers have the following responsibilities when involved crane and hoist operations within the port:

- To be familiar with the hazards associated with working with cranes and hoists.
- To work in accordance with written procedures and standards for operating cranes and hoists.
- To use the appropriate equipment and materials when working with cranes and hoists in the port.
- To promptly report any incidents, accidents, near misses or hazards to their supervisor and/or the Port Control Tower.

4. Crane and Hoist Operations

4.1 Notification of Crane Operations to PHPA

Prior to any crane operations commencing in the port area a PHPA Crane Operations Notifications Form must be completed and sent via email to crane.operations@phpa.com.au

Crane operations cannot commence until the person in charge of the crane operation has been advised by an authorised PHPA officer that the crane operation has been approved. A copy of the PHPA Crane Operations Notification Form is included in this document as Appendix 2.

4.2 Risk and Hazard Management

4.2.1 Job Safety Analysis

The person in charge of a crane / lifting operation in the port must ensure that a Job Safety Analysis (JSA) involving all personnel who are involved in the crane / lifting operation is performed prior to the lift commencing. The Job Safety Analysis must address all tasks and aspects of the lifting operation. JSA's must be available for inspection by authorised Port Authority personnel.

4.2.2 Lift Plan/Study and Lift Methodology

The person in charge of a crane / lifting operation in the port must ensure that a Lift Plan/Study and Lift Methodology is performed prior to the lifting operation commencing. The Lift Plan/Study and Lift Methodology must address all aspects of the lifting operation. Lift Plan's/Studies and Lift Methodologies must be available for inspection by authorised Port Authority personnel.

Suspended loads must not be slewed or pass over persons, vehicles or buildings.

4.3 Exclusion Zones

The person in charge of a crane / lifting operation in the port must ensure that a safety exclusion zone is established around the crane(s) and the item(s) to be lifted prior to the lift commencing. The safety exclusion must be established using cones, hazard-net, barricading or some other physical structure which clearly delineates the safety exclusion zone around the lifting operation.

4.4 Pick and Carry Cranes

Pick and carry cranes (i.e. Franna's, Cervan Marine Wobbly) must be escorted by a vehicle fitted with flashing amber lights at all times whilst moving around the port. All loads being carried by pick and carry cranes must be securely fastened to the crane to stop sudden and unnecessary movement while being transported.

4.5 Forklifts

Forklifts used for moving loads around the port on port roads (e.g. cattle races) must be escorted by a vehicle with flashing amber lights at all times. All loads being carried by forklifts around the port must be securely fastened to ensure that there is no sudden and unnecessary movement while being transported. Transport of loads by forklift can also be identified in a Traffic Management Plan for a specific task or project.

4.6 Elevated Work Platforms

The use of elevated work platforms within the port must be compliant with the relevant sections of the *Occupation Safety and Health Regulations 1996*, in particular Regulation 4.53 Plant that lifts, suspends or lowers people, equipment or materials; and Regulation 4.54 Additional requirements as to cranes, hoists and building maintenance units. All elevated work platforms used within the port must be compliant with AS 1418.10 – 2004 Elevating work platforms.

4.7 Work Boxes/Cages

Crane operations involving the use of work boxes/cages must be compliant with the relevant sections of the *Occupation Safety and Health Regulations 1996*, in particular Regulation 4.53 Plant that lifts, suspends or lowers people, equipment or materials; and Regulation 4.54 Additional requirements as to cranes, hoists and building maintenance units. All work boxes/cages used within the port must be compliant with AS1418.17 – 1996 Design and construction of workboxes.

Work boxes/cages which are fitted to forklifts must not move when a person is in the work box/cage. The person must exit the work box/cage prior to the work box/cage being repositioned.

4.8 Wharf Access

Wharf No.1, No.2, No.3 and the Tug Pen are gazetted as Land-side Restricted Zones (LRZs) under the *Maritime Transport and Offshore Facilities Security Regulations 2003* and the Port Hedland Port Authority Port Security Plan. Personnel who require access to the ports Land-side Restricted Zones must be the holder of a valid Maritime Security Identification Card (MSIC). Personnel who are not the holder of a valid MSIC must be continually escorted and monitored by the holder of a valid MSIC.

Cranes and hoists are not permitted to access Wharf No.1 and No.3 when bulk ship loading operations are in progress. Crane lifting operations over the wharf must not occur over or near ships mooring lines. Crane operators must obtain approval from the PHPA Shipping Control Tower (SCT) prior to crane operations commencing on any wharf. Lifting operations over the wharf (i.e. lifting dredging pipes into or out of the water) must stop for all shipping movements.

4.9 Wharf Load Lifting Limits

Load lifting limits apply to the three common users berths within the port. Any crane operators who wish to perform any heavy lifts on any of the common user berths must contact the Port Authority Technical Services Manager and request a copy of the Load Lifting Limit Plan for the berths. Authorisation from the PHPA must be obtained for working loads in excess of 30 tonnes.

4.10 Legislation

All crane and hoist operations at the port must be compliant with the relevant sections of the *Occupation Safety and Health Regulations 1996*, in particular Regulation 4.53 Plant that lifts, suspends or lowers people, equipment or materials; and Regulation 4.54 Additional requirements as to cranes, hoists and building maintenance units.

5. Incident Reporting

All incidents, accidents and near misses must be reported immediately to the Shipping Control Tower. A written report must be provided to the Port Authority within 24 hours of the incident occurring.

It is Port Hedland Port Authority's policy that all serious accidents and incidents resulting in injury or material damage be reported. All accidents, incidents and near misses should be reported to the Harbour Master immediately by the most expedient means. An initial verbal report must be supplemented within 24 hours, with a detailed written report. Incident Report

Forms for such reports are available from the Port Authority reception and security gatehouse. Generic incident reporting forms are generally acceptable.

It is important that all incidents including near misses are reported immediately so that appropriate action can be taken as soon as possible to avoid further injury or accidents to other people. The Port Authority requires that all accidents, incidents and near misses that are reported are thoroughly investigated and a copy of the investigation report provided.

6. Breaches of these procedures

Personnel who are involved in high potential incidents or near misses who are found to be at fault due to a breach of these procedures may be subject to the following action:

First Offence:	Written warning letter
Second Offence:	Required to re-sit the PHPA induction
Third Offence:	Removed off site for a period to be determined by PHPA and re-sit the PHPA induction prior to being permitted back into the port.

Appendix 1 – Crane Registration Form

Port Hedland Port Authority Crane Registration Form

With effect from 1st October, 2006, cranes will not be permitted to enter or operate within the port without being registered with the Port Hedland Port Authority. Completed Crane Registration Forms can be faxed or emailed Attention: Senior Safety and Security Advisor, Port Hedland Port Authority. Fax No. (08) 9173 0060; Email – ricky.hall@phpa.com.au

A minimum of 12 hours notice must be given to the PHPA for cranes to be inspected prior to being registered with the PHPA. Unregistered, unannounced cranes that arrive at the security gatehouse at short notice seeking an inspection to allow the crane to access the port will be refused an inspection and denied access to the port.

Please complete all sections of this form

1.	Date of Registration	:	.....
2.	Company Name	:	.....
3.	Vehicle Registration No.	:	.....
4.	Company Fleet No.	:	.....
5.	Crane Lifting Capacity (SWL) (WLL)	:	.....
6.	Slewing cranes must have an all around red flashing light at the top of its boom (must be visible from 360°)	:	.....
7.	Crane must be fitted with a UHF Radio (portable radios acceptable)	:	.....
8.	Mobile Phone No. on crane (diversion to office or mobile acceptable)	:	.....
9.	The PHPA Port Control Tower emergency contact numbers must be displayed in the cabin	:	.....
10.	All inspection certificates for the crane must be current	:	.....
11.	Have all lifting devices, load chains, wire ropes, slings been inspected by a qualified inspector and a record maintained	:	.....

This registration form has been received by the Port Hedland Port Authority and remains valid until

..... Day of ..... 20 .....

.....

Port Hedland Port Authority

Original: PHPA
CC: Operator

Port Hedland Port Authority Crane Operations Notification Form

THIS FORM MUST BE COMPLETED AND A COPY FORWARDED TO THE PORT HEDLAND PORT AUTHORITY PRIOR TO ANY CRANE OPERATIONS COMMENCING WITHIN THE PORT AREA.
PLEASE NOTE: CRANES WILL NOT BE PERMITTED TO ENTER OR OPERATE WITHIN THE PORT AREA WITHOUT BEING REGISTRED PRIOR WITH THE PORT HEDLAND PORT AUTHORITY.

Date: ..... / ..... / ..... Time: .....

Company Name: .....

Contact Person(s)

	Name	**Contact Numbers**
During Office Hours	_____	.....
	_____	.....
	_____	.....
After Hours	_____	.....
	_____	.....
	_____	.....

Crane Lifting Capacity (SWL) (WLL): _____

Slewing cranes must have an all around red flashing light at the top of its boom (must be visible from 360°)	Yes	❑	No	❑
Are crane(s) currently registered with PHPA?	Yes	❑	No	❑
Is a lift plan/study required and if so has it been completed?	Yes	❑	No	❑
Will the crane(s) be operating in the helicopter flight path? (Refer to Appendix 3 of PR-OHS003 Crane and Hoist Operating Procedures)	Yes	❑	No	❑

Area where crane(s) will be operating – Please describe in full the operations to be undertaken:

.....

.....

Please advise of the date(s) crane(s) will be operating in the abovementioned area:

.....

.....

Scope of Work – Brief Description:

.....

.....

IN ANY EMERGENCY PLEASE CONTACT THE SHIPPING CONTROL TOWER ON 9173 0030 (24HR)
VHF CH 12 OR 16
FOR POLICE, AMBULANCE OR FIRE RING 000

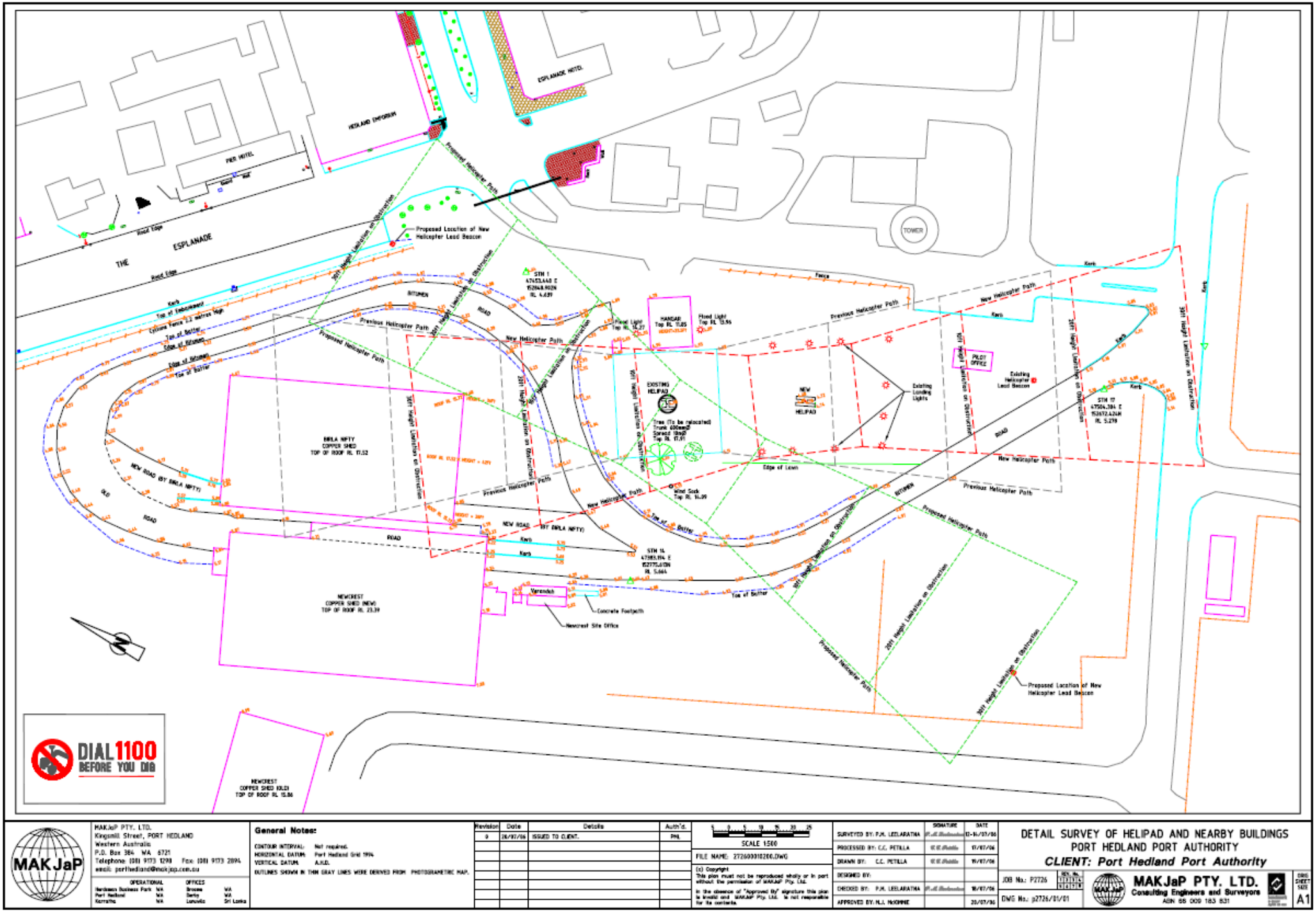
Please email this form to crane.operations@phpa.com.au

Office Use Only:

Received: Date: ..... / ..... / ..... Time: _____

Approved ❑ Denied ❑

Appendix 3 – Helicopter Flight Path



MAKJaP

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OPERATIONAL		OFFICES	
Hardman Business Park	WA	Broome	WA
Port Hedland	WA	Derby	WA
Karratha	WA	Lunuvilu	Sri Lanka

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CONTOUR INTERVAL: Not required.
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VERTICAL DATUM: A.H.D.
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		SIGNATURE	DATE
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PROCESSED BY:	C.C. PETILLA		07/07/06
DRAWN BY:	C.C. PETILLA		10/07/06
DESIGNED BY:			
CHECKED BY:	P.M. LEELARATNA		18/07/06
APPROVED BY:	M.J. McGINNE		20/07/06

DETAIL SURVEY OF HELIPAD AND NEARBY BUILDINGS
PORT HEDLAND PORT AUTHORITY
CLIENT: Port Hedland Port Authority

JOB No.: P2726
REV. No. 0
DWG No.: p2726/01/01

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Consulting Engineers and Surveyors
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DWG SHEET SIZE A1