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# 1 Introduction

## 1.1 Purpose

This guide is intended for Curtin University's Contractors, Vendors, University Staff and Permit Managers, providing information into the role and process of applying for a Crane Permit. The system is designed to prevent the occurrence of incidents or injury to contractors, staff and students; and prevent damage to the University Estate.

## 1.2 Inclusion Group

This guide is intended for any organisation engaged by Curtin University and nominated to the Contractor as the representative of the University.

## 2 Definitions

<b>Term</b>	<b>Definition</b>
Contractor	The Company engaged by Curtin University to perform work on the Estate.
Permit	Authorises person(s) to undertake works on the Estate.
Permit Applicant	The person who completes the Permit Application
Permit Manager	The person authorised by the University to manage the Permit process.
Project Manager	The person managing the Project on behalf of the University.
Risk Assessment	A systematic use of available information to determine how often specified events may occur and the magnitude of their consequences.
Risk Management	The systematic application of management policies, procedures and practices to the tasks of establishing the context, identifying, assessing, treating and monitoring risk.
Work Methodology	A statement submitted by the Contractor describing the tasks to be completed during crane use.
The Core	The Core is the Pedestrian Precinct in which vehicles are restricted between the hours of 9:00am-3:30pm.

## 3 Crane Permit

### 3.1 Context

Prior to any work commencing requiring the use of a crane, a Crane Permit must be obtained and will require certain documentation to be submitted, including:

- Lift Plan;
- Traffic Management Plan, including pedestrian and vehicle traffic;
- Copies of operator licenses (crane and rigger); and
- Copies of lift register including all equipment being used.

All crane permits must not exceed a period of 4 weeks. Should further time be required to complete the works further permit applications are to be submitted.

### 3.2 Dial Before you Dig

Dial Before You Dig is a free referral service designed to prevent damage and disruption to the vast pipe and cable networks which provides Australia with essential services.

Dial Before You Dig provide information about underground networks at excavation sites, so you don't have to contact the utility organisations individually. You inform the server of your dig location and they pass on this referral to the affected asset owners. They then send the information directly to you.

The service is designed to protect Australia's excavators, by providing them with accurate information about the work site.

Before applying for a Crane Permit, all contractors must lodge a free enquiry online at [www.1100.com.au](http://www.1100.com.au) or call 1100.

### 3.3 Mobile Plant

All mobile plant brought on to the University by contractors shall meet the requirements of the Occupational Safety and Health Regulations 1996. Additionally, personnel operating mobile plant shall hold the appropriate Classification of High Risk Work (HRW) licences. This applies to the operation of certain forklifts, cranes, hoists, or the carrying out of any scaffolding work 4 metres or greater in height, dogging/ rigging work or any other class of high risk work.

Reversing beepers and revolving lights must be in working condition and used where fitted.

### 3.4 Stakeholder Consultation

Prior to application for a Crane Permit, the Contractor is required to identify the relevant Curtin stakeholders. This is an integral step to ensuring a permit can be approved. If the Applicant is unsure of whom relevant Curtin stakeholders may be it is important they liaise with their Permit Manager.

While a list of relevant stakeholder groups is provided below, project teams are required to add to the list as deemed necessary.

<b>Stakeholder Group</b>	<b>Contact Details</b>
Curtin Operations and Maintenance	9266 4899
Curtin Security	9266 4444
Service Co-Ord Centre (SCC)	9266 2020
Health, Safety and Emergency Management	9266 4900
Student Guild/Café	9266 4272
Curtin Teaching and Learning	9266 1269
Corporate Services	9266 7152
Class Management Office, Student Central	9266 1301
Disability Services	disabilityservices@curtin.edu.au

In addition to the above stakeholder groups, each Curtin University Building/ Faculty has a relevant Faculty Business Manager. Prior to application for the Crane Permit, the Permit Manager is required to liaise with the relevant Faculty Business Manager, to notify them of works. A list of Faculty Business Managers is provided below:

<b>Faculty</b>	<b>Faculty Business Manager</b>
Faculty of Science and Engineering	Mr Steve Bee
Curtin Business School (CBS)	Mrs Gail Epiro
Faculty of Humanities	Kenneth McCluskey
Faculty of Health Sciences	Phil Hocking

### 3.5 Risk Management

The Crane Permit Procedure and Permit Application are designed to guide parties wishing to operate a crane, through a structured risk assessment process.

Additional systems for risk assessment and analysis are also necessary to effectively mitigate risks when operating a crane. These include:

- Lift Plan;
- Traffic Management Plan, including pedestrian and vehicle traffic;
- Copies of operator licenses (crane and rigger); and
- Copies of lift register including all equipment being used.

Additionally, key risk items that need to be considered during the Risk Management Plan include:

- Disruption to University Business
- Crane access to, from and set up on site
- Working from heights / Lifting equipment onto roof
- Hot works
- Interaction with Vehicles, Pedestrians and Occupants

#### **PRIOR to applying for a Crane Permit the Contractor must:**

- Lodge a free enquiry online at [www.1100.com.au](http://www.1100.com.au) to identify underground networks at site;
- Site visit to determine crane entry/exit routes and positioning/set up of crane on site;
- Review in-ground services/infrastructure and conditions impacted by crane;
- Speak to relevant/affected stakeholders to identify potential risks; and
- Undertake a Risk Management Plan which considers:
  - How access will be managed
  - Route of Entry
  - Exclusion zone(s) internal/external
  - Traffic management
  - Lifting plan (Incl. Spotters)
  - Personal Protective Equipment

The hierarchy of risk control can be applied to crane planning prior to work commencing to ensure that all options reduce likelihood and/or consequence, of a crane causing damage to existing services or persons.

<b>Control</b>	<b>Test</b>
<b>Elimination</b>	Can use of a crane be avoided completely?
<b>Substitution</b>	Can the location of works be altered to avoid Services?
<b>Engineering</b>	Can alternate design be used?
<b>Administrative</b>	You must have the required Permits. You must have developed Risk Management Plan during crane planning.
<b>Personal Protective Equipment</b>	What equipment is required for the workers to ensure they are not injured during use of crane?

It is important to recognise that each site and each set of circumstances represent a different risk exposure and as such each Crane Permit needs to be properly risk assessed and the relevant controls defined.

Different controls are possible for both likelihood and consequence and the Risk Management Plan should seek first to reduce:

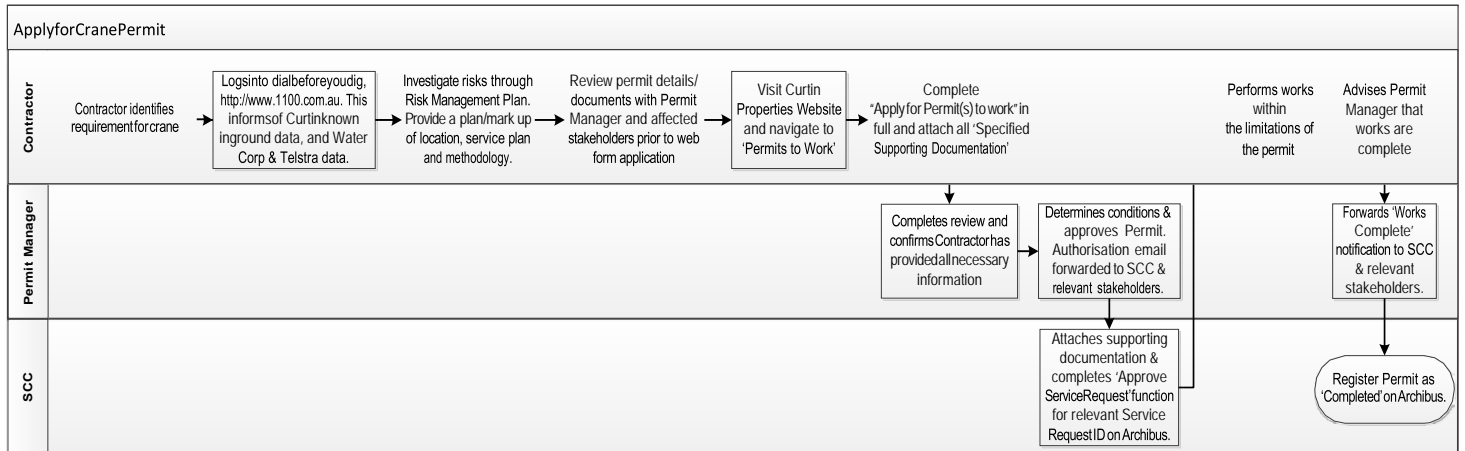
- Likelihood of damaging existing infrastructure through ensuring the best data possible is obtained and verified on site.
- Consultation with the relevant Curtin University Stakeholders should verify whether other works recently completed, or works in progress have installed additional services to those shown on obtained data.
- The location where the works are being undertaken, adjacent works and whether this occurs in a live environment. The combination of these factors will assist to define the skills required on site, to ensure that existing assets are not damaged with workers and patrons remaining safe.



# 4 Process for Applying for Crane Permit

## 4.1 Workflow Diagram

The below flow chart demonstrates the process for applying for Crane Permit. This process is described in more detailed in [Section 4.2](#).



## 4.2 Procedure

### Contractor Identifies Requirement for Crane

*Accountability: Contractor*

During the course of the Contractors work under the Contract, contractors may encounter a situation where a crane is required. When this occurs, the procedure within the above flow chart and within this process section is to be followed.

### Dial Before you Dig

*Accountability: Contractor*

Before applying for a Crane Permit, all contractors must lodge a free enquiry online at [www.1100.com.au](http://www.1100.com.au), which will provide the Contractor with information about underground networks at excavation sites.

### PAAT

Curtin University's land is within the flight path for Perth Airport. Applicants are required to lodge a request with Perth Airport prior to any Crane works commencing. Further information on this process can be found in section 6.2. Any queries regarding this process must be directed to Perth Airport.

### Investigate Potential Impact(s) of Crane

*Accountability: Contractor*

The Contractor is responsible for carrying out all necessary investigations, as outlined below. If required, the Permit Manger is to assist the Contractor with these investigations, including:

- Identification and consultation with relevant/affected stakeholders;
- Services Plan of known and in-ground services in the area;
- Risk Management Plan;
- Location Plan; and

- 'Methodology of Works', outlining step by step how the crane works will be performed including, access to site, works being performed and departure from site.

## **Review Content with Permit Manager & Affected Stakeholders**

*Accountability: Contractor*

The Contractor is responsible for ensuring content of the Permit Application is reviewed with the Permit Manager, prior to the online application. Any necessary amendments are to be made prior to completion of the online application form.

## **Navigate to Web Form Application**

*Accountability: Applicant*

Once all investigations are complete, the Applicant navigates to the Crane Permit Online Web Form, which is found under ['Permits to Work'](#) on the Properties Website.

## **Web Form Application**

*Accountability: Applicant*

The Applicant completes the Online Web Form, attaching required documentation, as specified in [Section 5](#).

Upon submitting the online web form, the Applicant will receive an automated notification confirming Curtin University's receipt of the Permit Application.

## **Review Permit Application**

*Accountability: Permit Manager*

The Permit Manager receives an automated 'Authorisation Requisition' email (with a unique Service Request ID), containing the Applicants completed online web permit application. The Permit Manager reviews the form to determine applicant has a relevant requirement for crane use and has met all the requirements.

## **Determine Conditions & Approve Permit**

*Accountability: Permit Manager*

Once satisfied, the Permit Manager forwards an authorisation email approving the Permit Application to the SCC, with a copy to the relevant stakeholders. The acceptable email is the 'Authorisation' text extract from the automated 'Authorisation Requisition' email notification. The Crane Permit Application should demonstrate the Contractor has planned for the works, identified risks and has adequate mitigation strategies to safely execute the works. If the Permit Manager's review of the Permit Application identifies deficiencies or areas requiring further clarification, the Contractor is advised of these deficiencies, to assist with the completion and approval of the Permit Application.

## **Attach Documentation & Approve Service Request**

*Accountability: SCC*

On receipt of the authorisation email, the SCC calls up the relevant Service Request ID on Archibus. The SCC attaches the Supporting Documentation to the corresponding Service Request ID and clicks 'Approve'. This completes the 'Approve Service Request' function in Archibus.

## **Use of Crane Permit**

*Accountability: Contractor*

Upon receipt of the email notification containing the approved Crane Permit, the Contractor must ensure that works are undertaken within the limitations of the authorised Permit.

## **Notify Permit Manager of Works Complete**

*Accountability: Contractor*

The Contractor must quote the corresponding Service Request ID in the email, when notifying the Permit Manager that all works associated with the Permit have been completed.

## **Forward Works Complete Notification**

*Accountability: Permit Manager*

Upon receipt of the 'Works Complete' notification email, the Permit Manager must forward the email to the SCC and relevant stakeholders, notifying that all works associated with the Permit have been completed

## **Register Permit Complete**

*Accountability: SCC*

Upon receipt of the 'Works Complete' email, the SCC must register the Permit Number as 'Completed' in Archibus. Then the Permit Manager and Applicant will receive an automated email notifying that the Crane Permit has been registered as 'Completed'.

## 5 Documentation Requirements

All Crane Permits require the following attachments:

- Location Plan;
- Services Plan of known and in-ground services in the area;
- Risk Management Plan;
- Work Methodology.

Additional documentation is required when applying for the Crane Permit includes:

- High Risk Works License details

## 6 Reference Material

### 6.1 Related Tools

Application for Crane Permit

Risk Assessment / Risk Register

Archibus

### 6.2 Related Knowledge

Upon applying for a Crane Permit, all applicants are required to understand and follow the below:

- [Curtin's Contractor Health and Safety Handbook](#)
- [Curtin's Risk Management Webpage](#)
- [Safe Work Australia Crane Guidance Material](#)
- <https://paat.perthairport.com.au/Account/Login?ReturnUrl=%2F>

## 7 Roles & Responsibilities Matrix

### 7.1 Legend

Legend	Key	Explanation
R1	Primary Responsibility	Responsible for directly actioning.
R2	Secondary Responsibility	Responsible for monitoring tasks performed by others.

### 7.2 Roles & Responsibilities Matrix

Responsibilities	Applicant	Permit Manager	SCC	Parking & Security
Ensuring that any contractor, sub-contractor, their employees and University staff are aware of the requirement for a crane permit, prior to any works being undertaken.	R1		R2	
Information within relevant Guidelines and Procedures is understood and followed.	R1			R2
Undertaking all relevant preliminary investigations including Services Plan, Work Methodology, Risk Management Plan and Location Plan	R1	R2		
Consulting relevant Curtin University Stakeholders as identified by the Permit Manager, to verify impacts and actions necessary for management	R1	R2		
Ensuring that no services/property is damaged during works to Curtin University, performed by the company responsible for the works.	R1	R2		
Including all information within the online permit application in order for the Permit Manager to adequately review the Permit.	R1	R2		
Identifying and coordinating resolution of deficiencies or areas requiring further clarification, following review of the Applicants online webform application.		R1		
Forwarding authorisation email and attachments approving the Permit application to the SCC, copying in relevant Stakeholders.		R1	R2	
Attaching supporting documentation to the relevant Service Request ID in Archibus and completing the 'Approve Service Request' function in Archibus.			R1	
Ensuring the Contractor understands the Crane Permit prior to works commencing	R2	R1		
Ensuring the Contractor has a full copy of the Permit in their possession at all times when works are occurring.	R2	R1		

<b>Responsibilities</b>	<b>Applicant</b>	<b>Permit Manager</b>	<b>SCC</b>	<b>Parking &amp; Security</b>
Facilitation of an OSH Works Planning Meeting on site, prior to works commencing to discuss OSH risks associated with the contracted works and to determine adequate control processes to deal with risk occurrence.	R1	R2		
Confirming with each trade involved in the work that they have checked that the actions they plan to undertake will not damage any Curtin asset on the site causing injury (or) death, rather than assuming the tradespeople fully understand.	R2	R1		
During use of the crane, take all necessary precautions to ensure services or any other assets on the Curtin estate, are not damaged.	R2	R1		
Ensuring that works are only undertaken within the limitations of the authorised Permit, by the specified method and persons	R1	R2		
Proactively monitoring works progress, key milestones, and identifying risks and managing specific risk issues	R1	R2		
Intervening if any activities are likely to cause damage to Curtin assets (or) Injury / Death.	R2	R1		
Forwarding of a 'Works Complete' email quoting the corresponding Service Request ID to the Permit Manager	R1	R2		
Forwarding the 'Works Complete' email to the SCC and relevant stakeholders, notifying that all works associated with the Permit have been completed		R1	R2	
Completing the close out function in Archibus and registering the Permit as 'Completed'			R1	

## 8 Document Types

Activity Register	A formal list of all Activities
Form	Logically structured document with a fixed arrangement of captioned spaces, designed for entering, extracting, or communicating the required information.
Plan	Written account of intended future course of action (scheme) aimed at achieving specific goal(s) or objective(s) within a specific timeframe.
Plant & Equipment Register	A formal list of all Plant & Equipment.
Procedure	A fixed, step-by-step sequence of activities or course of action (with definite start and end points) that must be followed in the same order to correctly perform a task.
Process	Sequence of interdependent and linked procedures which, at every stage, consume one or more resources (employee time, energy, machines, money) to convert inputs (data, material, parts, etc.) into outputs.
Process Map	A visual representation of a procedure defining information flows and connections to documents and other procedures.
Program	A plan of action aimed at accomplishing a clear business objective, with details on what work is to be done, by whom, when, and what means or resources will be used.
Report	A document containing information organized in a narrative, graphic, or tabular form, prepared on ad hoc, periodic, recurring, regular, or as required basis.
Review	Orderly recall of past information in summary form for its re-examination.
Risk Register	A formal list of all risks.
Spot Check	Unscheduled inspection at random intervals.
Template	A file that serves as a starting point for a new document.