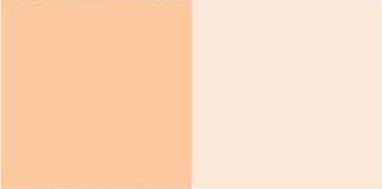
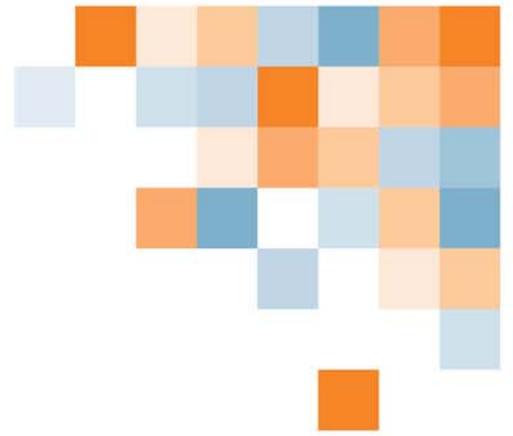


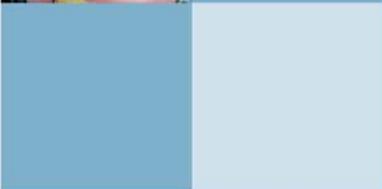
**ita**  
**YOUR TICKET.**



# OCCUPATIONAL PERFORMANCE STANDARDS



## Climbing Arborist





The latest version of this document is available in PDF format on the ITA website  
[www.itabc.ca](http://www.itabc.ca)

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## Contents

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<b>ACKNOWLEDGEMENTS .....</b>	<b>2</b>
<b>SECTION 1 INTRODUCTION .....</b>	<b>3</b>
<b>FORWARD .....</b>	<b>4</b>
Who is this resource for? .....	4
How to use this Document.....	4
<b>INTRODUCTION TO OCCUPATIONAL PERFORMANCE STANDARDS.....</b>	<b>5</b>
What are Occupational Performance Standards? .....	5
What is a Unit of Competency? .....	5
How to Read Units of Competency .....	5
What is Enhanced Assessment? .....	9
How is a Challenger Assessed? .....	9
What are the Steps in the Process? .....	10
<b>SECTION 2 OCCUPATION OVERVIEW .....</b>	<b>11</b>
<b>BECOMING A CERTIFIED TRADESPERSON.....</b>	<b>12</b>
Credentialing Rules.....	12
Units of competency in this occupation.....	15
<b>CERTIFICATION FRAMEWORK.....</b>	<b>15</b>
<b>SECTION 3 UNITS OF COMPETENCY.....</b>	<b>16</b>



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The Industry Training Authority would like to acknowledge the dedication and hard work of all the industry representatives appointed to identify the training requirements of the Climbing Arborist occupation.



# **SECTION 1**

## **INTRODUCTION**



## Forward

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### Who is this resource for?

This resource is for individuals interested in challenging the Climbing Arborist trade certification and for the assessors of those challenging the certification.

It contains the occupational performance standards, defined by industry, which fully describe the knowledge and skills and attributes required for effective performance in the workplace. The units within the occupational performance standards are used as benchmarks for assessing the competence of challengers pursuing certification in an occupation.

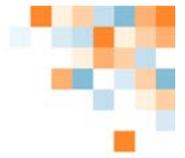
### How to use this Document

This resource is primarily for individuals who wish to challenge the trade certification and for their assessors. However, it is also used by other audiences; the table below describes how it can be used by each intended audience.

Intended Audience	Use of Occupational Performance Standards
<b>Challengers</b>	<ul style="list-style-type: none"> <li>▪ a means of identifying whether they already have the skills and knowledge required for a particular qualification (recognition of prior learning)</li> <li>▪ a framework against which to measure their performance and development needs</li> <li>▪ a reference point to identify 'how' they may be assessed</li> </ul>
<b>Assessors</b>	<ul style="list-style-type: none"> <li>▪ a framework for assessing the skills, knowledge, and performance of individuals challenging a certification in a particular occupation</li> </ul>
<b>Assessment Agency (ITO)</b>	<ul style="list-style-type: none"> <li>▪ a framework for informing and guiding challengers through the assessment process</li> </ul>
<b>Employers</b>	<ul style="list-style-type: none"> <li>▪ a frame of reference for how they expect job or work roles to be performed</li> <li>▪ a way of measuring whether people are competent at their current job</li> <li>▪ a way of assessing whether people have the skills and knowledge required for a new job</li> <li>▪ a professional framework within which to prepare a development plan that ensures competence is maintained and enhanced</li> </ul>
<b>Licensing/regulatory bodies</b>	<ul style="list-style-type: none"> <li>▪ as a basis for the issuance of a certification or license to practice within a certain field</li> </ul>

To assist the reader in getting started, the following pages answer some common questions about OPS.

- What are occupational performance standards?
- What is a unit of competency?
- How to read units of competency



## Introduction to Occupational Performance Standards

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### What are Occupational Performance Standards?

*Occupational performance standards (OPS)* are statements accepted by industry that describe effective performance in the workplace. They are used to inform those involved in the occupation of the requirements for certification through the challenge pathway. Occupational performance standards are comprised of a number of *units of competency* which, together, describe the full scope of the occupation.

### What is a Unit of Competency?

A *unit of competency* is an aspect of work in a particular occupation or industry that is used as a benchmark for assessment of competence. Each unit defines the competencies required to perform a specific work activity or occupational skill, is expressed in terms of outcomes, and follows a standard format.

Each unit of competency describes:

- A specific work task or activity, or occupational skill and what it involves
- The skills and knowledge required to perform the task or activity
- The level of skill and knowledge required for competence
- The conditions under which the task or activity is conducted
- The evidence that may be gathered for an assessor to determine if a person is competent in performing the task or activity
- The type of assessment method that may be used to gather the evidence

### How to Read Units of Competency

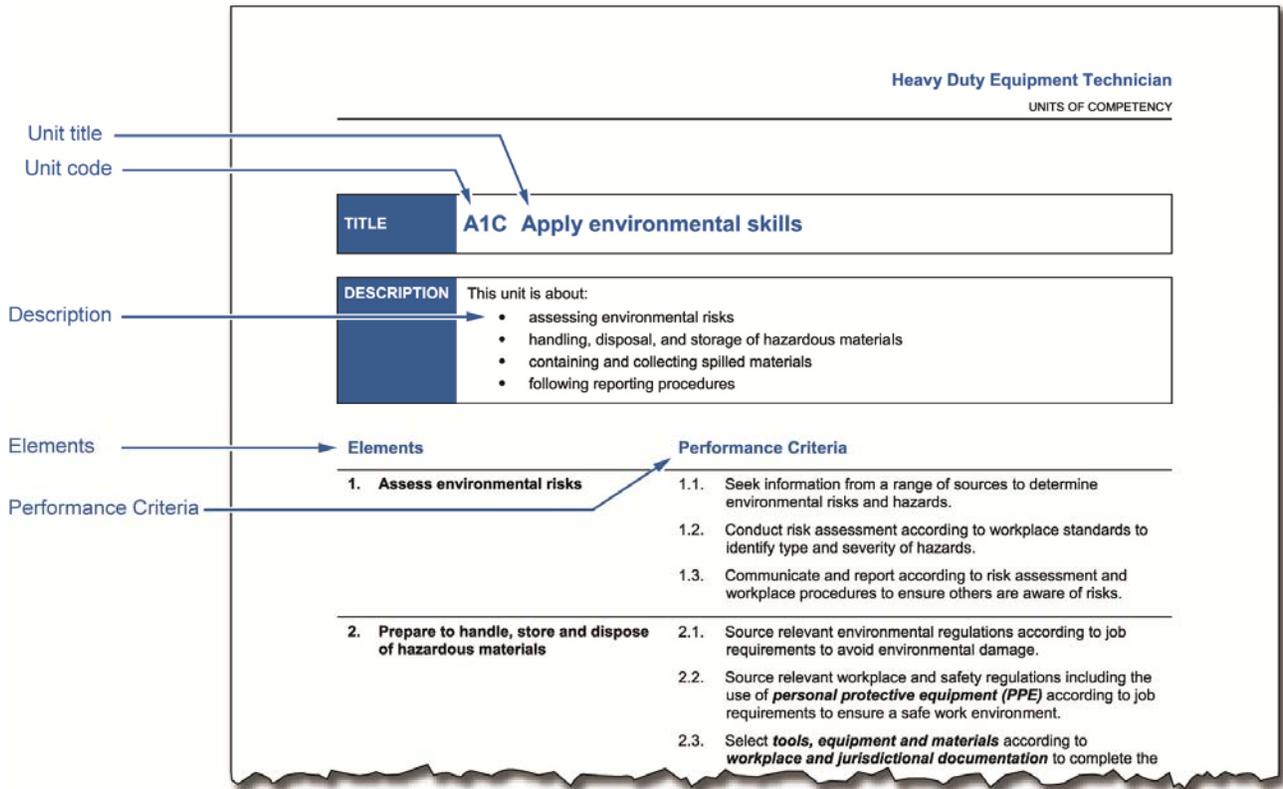
Units of competency follow a standard format and always contain the following components

- Unit title
- Description
- Elements
- Performance criteria
- Range of variables
- Assessment guide

<b>Unit title</b>	Each unit is unique and describes what the work activity or occupational skill is.
<b>Description</b>	Broadly communicates the scope of the unit and if necessary what is not in the unit. Builds off the title and expands to define the unit.
<b>Elements</b>	Elements are the basic building blocks of a unit. Elements describe in terms of outcomes the major functions of the unit. A work activity or occupational skill may have many tasks which, when clustered together, form an element.
<b>Performance Criteria</b>	Performance criteria are evaluative statements describing what is being assessed and to what standard. They describe the path to demonstrate that the elements have been achieved. Performance criteria are demonstrable, assessable, and measureable. Terms highlighted in bold and italics are further described in the Range of Variables



Figure 2. Unit of Competency – Unit title, unit code, description, elements and performance criteria





**Range of Variables**

Range statements provide the meaning and application of key terms and phrases which are **bolded** in the performance criteria. The list is not exhaustive.

Figure 3. Unit of Competency – Range of variables

**Heavy Duty Equipment Technician**  
UNITS OF COMPETENCY

**Range of Variables**

Range of variables provides detailed information about key terms used in the Performance Criteria for this unit. These key terms are bolded and italicized in the Performance Criteria.

**Range of sources** may include:

- Workplace Hazardous Materials Information System (WHMIS) documents such as Material Safety Data Sheets (MSDS) and labels
- manufacturers' data sheets
- workplace practice and procedures documentation
- operator/service manuals
- environmental legislation and regulations
- job hazard assessment (JHA)

**Environmental risks and hazards** may include:

- oil spills

---

**Workplace and jurisdictional documentation** may include:

- workplace policies and procedures
- legislated and company-specific forms
- WHMIS documents such as MSDS and labels

**Workplace procedures** may include:

- containing and collecting hazardous materials
- labeling containers
- transporting hazardous material

HDET unit standards.doc
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TRADES CERTIFICATION FOR CHALLENGERS | 17 / 31



**Assessment Guide** Provides critical information about how the unit of competency may be assessed.

**Knowledge to be assessed** Knowledge to be assessed identifies what a person needs to know to perform the work in an informed and effective manner, in direct relation to the scope of the unit.

**Critical evidence to be assessed** Critical evidence to be assessed identifies the evidence that must be collected to demonstrate the achievement of competency in the unit.

Figure 4. Unit of Competency – assessment guide section

<b>Heavy Duty Equipment Technician</b>													
UNITS OF COMPETENCY													
<b>Assessment Guide</b>	<p><b>Assessment Guide</b></p> <p><b>Assessment methods</b></p> <p>The following assessment methods may be used to assess this unit:</p> <table border="0"> <tr> <td></td> <td>evidence portfolio</td> <td>Review of evidence collected and submitted by the candidate (for example: documents or product samples)</td> </tr> <tr> <td></td> <td>written knowledge assessment</td> <td>Written questions to test knowledge</td> </tr> <tr> <td></td> <td>competency conversation</td> <td>Opportunity to explore a range of issues and tailor questions to suit and individual or group</td> </tr> <tr> <td></td> <td>practical assessment</td> <td>Direct observation of the candidate</td> </tr> </table> <p><b>Related units</b></p> <p>The following units can be assessed together:</p> <ul style="list-style-type: none"> <li>All units</li> </ul>		evidence portfolio	Review of evidence collected and submitted by the candidate (for example: documents or product samples)		written knowledge assessment	Written questions to test knowledge		competency conversation	Opportunity to explore a range of issues and tailor questions to suit and individual or group		practical assessment	Direct observation of the candidate
	evidence portfolio	Review of evidence collected and submitted by the candidate (for example: documents or product samples)											
	written knowledge assessment	Written questions to test knowledge											
	competency conversation	Opportunity to explore a range of issues and tailor questions to suit and individual or group											
	practical assessment	Direct observation of the candidate											
<b>Knowledge to be assessed</b>	<p><b>Knowledge to be assessed</b></p> <p>For this unit, a competent heavy duty equipment technician must know:</p> <ul style="list-style-type: none"> <li>how to source information on Transportation of Dangerous Goods (TDG) and Workplace Hazardous Materials Information System (WHMIS)</li> <li>environmental regulations</li> <li>procedures for disposal, handling, and storage of hazardous materials</li> <li>procedures for spill containment and collection</li> <li>location and how to read and understand WHMIS and MSDS</li> </ul>												
<b>Critical evidence to demonstrate competency</b>	<p><b>Critical evidence to demonstrate competency</b></p> <p>For this unit, a competent heavy duty equipment technician must be able to:</p> <ul style="list-style-type: none"> <li>read and interpret documentation</li> <li>communicate with co-workers and relevant authority</li> <li>deal effectively with unexpected circumstances</li> <li>work effectively as part of a team</li> </ul> <p>For this unit, a competent heavy duty equipment technician must be able to:</p> <ul style="list-style-type: none"> <li>identify hazards and develop and carry out a plan of action to contain and/or eliminate them according to workplace procedures</li> <li>demonstrate the use of WHMIS documents to handle, store and dispose of hazardous materials</li> <li>source and use workplace documents related to environmental hazards according to workplace procedures</li> <li>determine when authorities are to be notified following environmental accidents</li> </ul>												



### What is Enhanced Assessment?

In the traditional system, an individual wishing to challenge a trade certification must first have a requisite number of hours working in the occupation and then must achieve a passing grade on a multiple-choice exam.

In trades with enhanced assessment for challengers, individuals may challenge the certification when they have the requisite number of hours working in the occupation and sufficient experience to cover the full scope of the OPS. A variety of methods are used in the assessment process, providing a comprehensive view of the challenger’s skills and knowledge.

### How is a Challenger Assessed?

A variety of assessments are used to measure the challenger’s knowledge and skills (or competence) against industry standards. First, the challenger submits documentary evidence demonstrating their ability to meet the standards, known as a portfolio of evidence. The challenger then participates in the assessment process which involves a review of the evidence submitted, a short written assessment, a competency conversation (an oral interview) and a practical assessment.

Trained assessors carry out the assessment and determine whether the challenger is “competent” or “not yet competent.” Assessment activities are designed to provide evidence and allow for further development of skills, should the challenger be assessed as having “not yet achieved” one or more units of competency.

Refer to *Figure 1* for forms of assessment which may be used for assessing competency in each unit.

*Figure 1. Forms of Assessment*

#### Assessment Methods

	evidence portfolio	The evidence portfolio is a collection of direct, indirect, or third party evidence (such as documents or product samples) submitted by the candidate for review. The evidence helps an assessor make an informed judgment about competence.
	written knowledge assessment	The written knowledge assessment is presented in question format and tests the underpinning knowledge required to effectively perform the work, as described in the unit.
	competency conversation	The competency conversation identifies, through conversation and interview, the underpinning knowledge required to effectively perform the work, as described in the unit. It provides the assessor with an opportunity to explore a range of issues and tailor questions to suit the individual.
	practical assessment	The practical assessment methods identify, through direct observation of the candidate, the skills, knowledge and attributes required to effectively perform the work, as described in the unit. This may occur in a structured or simulated work activity.



### What are the Steps in the Process?

1. Review the **occupational performance standards** for your trade.
2. Based on the occupational performance standards, decide if you have the skills needed to undertake an assessment.
3. Complete the challenge application package.
4. Submit a hard copy of your application and evidence to the jurisdictional contact found on the last page of the challenger information kit.
5. Wait for acknowledgement of receipt of your application and notification of your assessment time(s).
6. Participate in the assessment:
  - If asked, complete a written assessment of your knowledge.
  - Take part in the oral interview, referred to as the “**competency conversation.**” This will be conducted either in person or over the phone.
  - Attend your practical assessment.

If you achieve all units of competency required for certification you will receive:

- a provincial/territorial Certificate of Qualification with a Red Seal endorsement (if applicable)
- a transcript detailing your achievements

If you do not achieve all units of competency required for certification, you will receive:

- a transcript detailing your achievements to date
- recommendations for gap training options



# **SECTION 2**

## **OCCUPATION OVERVIEW**



## Becoming a Certified Tradesperson

---

### Credentialing Rules

An individual wishing to obtain their trade certification as a Climbing Arborist either through an apprenticeship or through the challenge process must first demonstrate that they have successfully received an Arborist Technician – Certificate of Qualification and successfully written the Climbing Arborist Certificate of Qualification Exam. Their skills, knowledge and ability will then be evaluated by a certified assessor.

This trade consists of a total of 7 core (mandatory) units of competency. To receive certification a challenger must demonstrate competence in all 7 core units.

---

**Completion Requirements** Certification as a Climbing Arborist is awarded upon successful completion of:

Requirement	Level of Achievement Required
Climbing Arborist Certificate of Qualification Exam	<ul style="list-style-type: none"> <li>Minimum 70%</li> </ul>
Climbing Arborist Standardized Practical Assessment	<ul style="list-style-type: none"> <li>Declared competent by an ITA-registered Climbing Arborist Assessor in all seven core (mandatory) units of competency</li> <li>Must achieve minimum of 70% on the Climbing Arborist Certificate of Qualification exam prior to taking Practical Assessment</li> </ul>

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An individual wishing to obtain their trade certification as a Climbing Arborist through the challenge process must first demonstrate that they have 2,700 documented hours of directly related experience working as a Climbing Arborist.

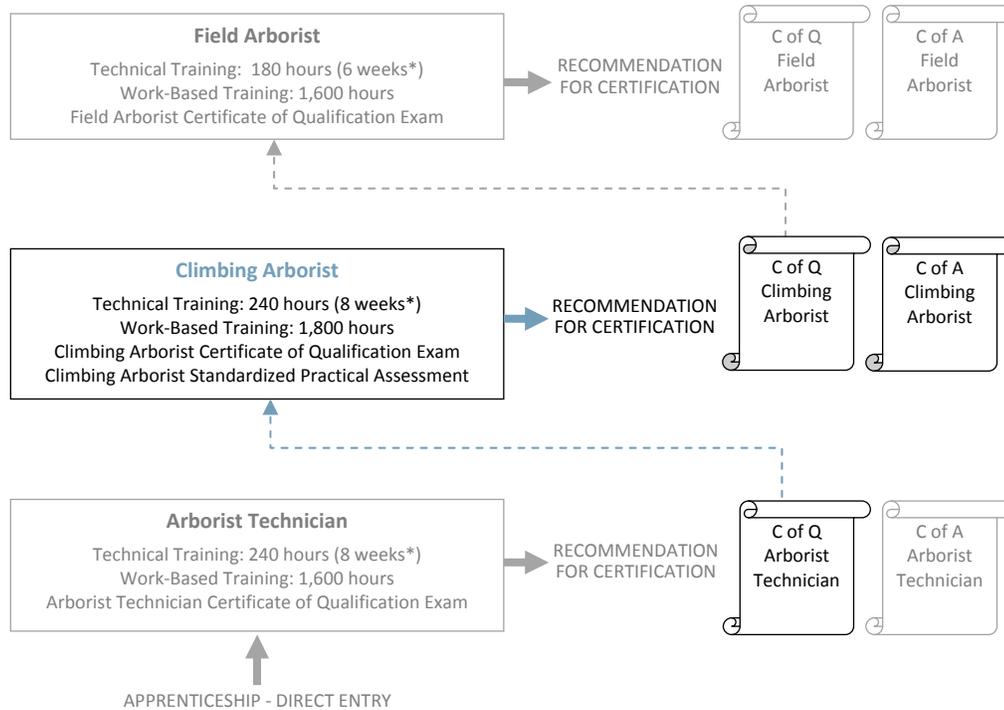


Figure 5. Program Credentialing Model

### Apprenticeship Pathway

This graphic provides an overview of the Climbing Arborist apprenticeship pathway.

C of Q = Certificate of Qualification  
C of A = Certificate of Apprenticeship



\*Suggested duration based on 30-hour week

#### CROSS-PROGRAM CREDITS

Individuals who hold the credentials listed below are entitled to receive partial credit toward the completion requirements of this program

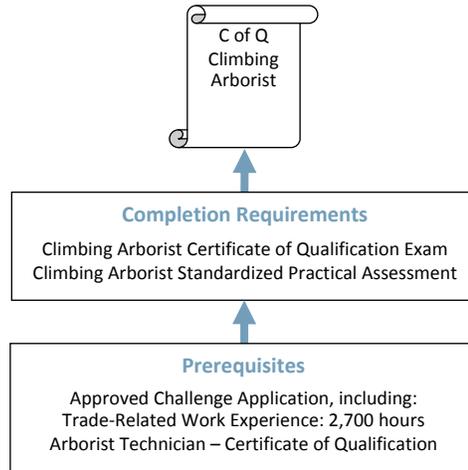




### Challenge Pathway

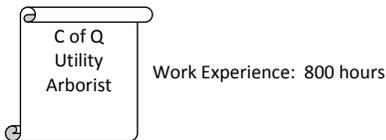
This graphic provides an overview of the Climbing Arborist challenge pathway.

*C of Q = Certificate of Qualification*



#### CREDIT FOR PRIOR LEARNING

*Individuals who hold the credentials listed below are considered to have met or partially met the prerequisites for challenging this program*





## Units of competency in this occupation

<b>Core Units</b>	<i>Total number core units: 7</i>
	<i>Units required for certification: ALL</i>

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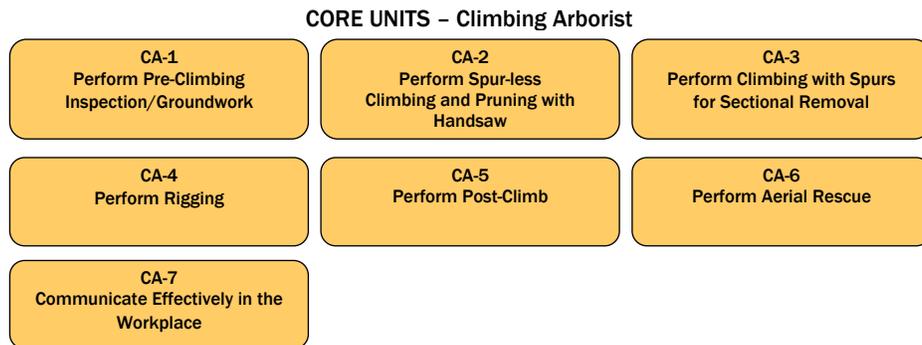
- CA-1 Perform Pre-Climbing Inspection/Groundwork
- CA-2 Perform Spur-less Climbing and Pruning with Hand Saw
- CA-3 Perform Climbing with Spurs for Sectional Removal
- CA-4 Perform Rigging
- CA-5 Perform Post-Climb
- CA-6 Perform Aerial Rescue
- CA-7 Communicate Effectively in the Workplace

---

## Certification Framework

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This diagram illustrates the framework for issuing Climbing Arborist certification for apprentices and challengers.





# **SECTION 3**

## **UNITS OF COMPETENCY**



TITLE	<b>CA1 Perform Pre-Climbing Inspection/Groundwork</b>
-------	---

DESCRIPTION	<p>This unit is about:</p> <ul style="list-style-type: none"> <li>• Reading and interpreting a work order to prepare for tasks</li> <li>• Conducting Hazard Assessments to ensure industry safe work practices and regulatory compliance</li> <li>• Preparing the worksite and equipment for climbing, pruning and rigging tasks</li> <li>• Communicating effectively in both written and verbal formats with client, crew, onsite personnel, and regulatory officials as required</li> </ul> <p>Pre-requisites for this unit:</p> <ul style="list-style-type: none"> <li>• Arborist Technician – Certificate of Qualification</li> <li>• Climbing Arborist Certificate of Qualification Exam – minimum 70%</li> </ul>
-------------	--

Elements	Performance Criteria
1. Read and interpret work order	1.1. Identify <b>tasks</b> and responsibilities including safety considerations 1.2. Select <b>climbing system</b> according to safety requirements and <b>equipment limitations</b> 1.3. Select <b>rigging system and components</b> according to safety requirements and <b>equipment limitations</b> 1.4. Describe <b>safety considerations</b> for chain saw operations
2. Conduct Hazard Assessment	2.1. Select and use <b>appropriate PPE</b> required for the task in accordance with the work order, <b>authorities having jurisdiction</b> and industry safe work practices, to ensure proper conditions and fit 2.2. Conduct an inner and outer perimeter (360) <b>visual assessment of tree</b> in accordance with <b>industry safe work practices</b> 2.3. Conduct an inner and outer perimeter (360) <b>visual assessment of site</b> in accordance with industry safe work practices 2.4. Identify <b>tree and site conditions</b> that can generate risks to personnel, public, property, and equipment
3. Develop and communicate a safe work plan	3.1. Evaluate hazard assessment in accordance with <b>work order</b> 3.2. Review risk mitigation strategies in compliance with <b>hierarchy of controls</b> 3.3. Develop and document <b>risk mitigation strategy</b> in compliance with industry safe work practices and authorities having jurisdiction 3.4. Record all tasks in the work order according to industry safe work practices 3.5. Assign <b>human resources</b> to tasks in accordance with work plan 3.6. Record emergency response plan as required by workplace and <b>jurisdictional legislation</b> 3.7. <b>Communicate and document</b> job plan to all parties involved in accordance with work plan




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<b>4. Prepare equipment and worksite to perform work</b>	4.1. Select <b>tools and equipment</b> required for the job and check they are working correctly prior to the use in accordance with industry safe work practices and manufacturer’s specifications 4.2. Check all <b>safety features of equipment</b> to ensure compliance with manufacturer’s specifications 4.3. <b>Delineate work zone</b> following industry safe work practices and risk mitigation strategy in accordance with the work plan 4.4. Confirm <b>emergency response plan</b> is in place in accordance with work plan and jurisdictional legislation
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---

### Range of Variables

The information below provides additional detail about key terms that appear in **bold and italics** in the Performance Criteria.

**Work order (company generated)** may include:

- Worksite location
- Tasks to be performed
- Job specific requirements
- Personnel
- Equipment requirements
- Regulatory requirements

**Tasks** may include:

- Climbing
- Rigging
- Chain saw operation
- Pruning
- Removal
- Trimming
- Plant health care
- Debris management

**Climbing system** may include:

- Climbing lines
- Rigging ropes
- Throw lines
- Slings
- Saddle, fasteners, and hardware
- Friction savers
- Lanyards
- Carabiners
- Micro-pulleys
- Ascenders/descenders
- Knots
- Inspection/rejection criteria for ropes and equipment
- Maintenance and storage requirements for ropes and equipment



**Rigging system and components** may include:

- Rigging ropes
- Tag (guide) lines
- Slings
- Hardware (shackles, pulleys, etc.)
- Knots
- Inspection/rejection criteria for ropes and equipment
- Maintenance and storage requirements for ropes and equipment

**Equipment limitations (climbing system)** may include:

- Equipment
- Safe working load limits
- Tensile strengths
- Dynamic (shock) loading
- Cycles to failure

**Equipment limitations (rigging system)** may include:

- Safe working load limits
- Tensile strengths
- Dynamic (shock) loading
- Cycles to failure
- Basic rigging systems
- Shock loading

**Safety considerations (chain saw)** must include:

- PPE
- Operating condition
- Starting
- Handling criteria for control and balance
- Sharpening methods for cutters, rakers, and bar service
- Fueling and lubrication requirements
- Safety features of chain saw include:
  - Chain catcher pin
  - Flywheel
  - Clutch
  - Decompression valve
  - Anti-vibration handle
  - Hand guard
  - Muffler
  - Chain brake
  - Throttle
  - Throttle interlock

**Authorities having jurisdiction** may include:

- WorkSafeBC
- Utility companies (e.g. BC Hydro, Telus, Fortis, etc.)
- Municipal by-laws
- Provincial authorities
- Federal authorities



**Appropriate PPE** must include:

- CSA approved boots with ankle support
- ANSI approved hard hat or Helmet with 4 point chin strap and visor
- Leather gloves for rigging
- Rubber gloves for climbing
- CSA approved safety glasses
- WorkSafeBC approved (3,600 fpm) chain saw pants or chaps
- Hearing protection (muffs or plugs)
- Class 2 hi-viz apparel

**Visual assessment of tree** must include:

- Fungal fruiting bodies
- Decay
- Structural defects
- Cracks
- Inclusions
- Dead wood
- Hangers
- Root lifting

**Industry safe work practices** may include:

- Industry standards
- Compliance with authorities having jurisdiction
- Standard operating procedures

**Visual assessment of site** must include:

- Structures (buildings, decks)
- Vehicles
- Sidewalks and driveways
- Septic and drain fields
- Lawn ornaments, furniture, lines, etc.
- Young trees, shrubs, flower beds
- Satellite dishes or antennae
- Electrical hazards
- Wet and muddy areas
- Poisonous plants
- Extreme slopes
- People (clients, bystanders)

**Tree and site conditions** may include:

- Overhead hazards
- Ground hazards
- Defects specific to the tree
- Area hazards
- Worksite hazards
- Target areas
- Infrastructure including electrical conductors
- People
- Traffic
- Riparian area



- Environmental conditions (weather, insects, plants)
- Wildlife

**Hierarchy of controls** must include:

- Elimination
- Substitution
- Contain risk at source
- Remove employee from risk
- Reduce exposure to risk by safe working systems/practice
- Warning signals (audible, visual – i.e. “all clear”)
- PPE
- Discipline/supervision

**Risk mitigation strategy** must include:

- Pruning
- Removing potential targets
- Posting warnings/barriers
- Cabling and/or bracing
- Propping

**Human resources** must include:

- Staff competencies
- Job qualifications such as licensing and certifications

**Jurisdictional legislation** must include:

- Federal regulations
- Provincial regulations
- Municipal regulations
- Standard business requirements such as licensing and insurance

**Jurisdictional legislation** may include:

- Pesticide use
- Electrical work
- Noise bylaws
- Hazardous waste
- Vehicle and traffic control
- Air quality

**Communicate and document** must include:

- Thorough understanding of the job to be performed
- Risk mitigation procedures
- Necessary equipment and the applications and limitations
- Relevant Utility companies and their requirements
- Up-to-date knowledge of
  - Industry standards
  - Qualifications
  - Regulations and requirements for job procedures
  - Standard operating procedures for mitigation procedures
  - Safety rules – company and government
  - Labour standards
  - Emergency response plan
  - Aerial rescue plan, if work at height work is required
- Methods of conducting site meetings
- Ability to perform risk analysis



- Verbal and written communication techniques

**Tools and equipment** may include:

- Climbing gear
- Rigging gear
- Small power tools
- Hand tools
- Ladders
- Vehicles including aerial lift truck
- Aerial lift truck
- Emergency response equipment

**Safety features of equipment** must include:

- Guards and safety bars
- Other related manufacturer's safety devices and features

**Delineate work zone** must include:

- Recognizable boundaries
- Communication training

**Emergency response plan** must include:

- Evacuate worker
- First Aid certification requirements
- Precautions and procedures to prevent fires
- Spill response plan
- Perform aerial rescue

### Assessment Guide

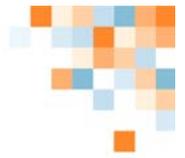
<p><b>Assessment methods</b></p>	<p>The following assessment methods may be used to assess this unit:</p> <table border="0"> <tr> <td></td> <td>evidence portfolio</td> <td>Review of evidence collected and submitted by the candidate (for example: documents or product samples)</td> </tr> <tr> <td></td> <td>written knowledge assessment</td> <td>Written questions to test knowledge</td> </tr> <tr> <td></td> <td>competency conversation</td> <td>Opportunity to explore a range of issues and tailor questions to suit and individual or group</td> </tr> <tr> <td></td> <td>practical assessment</td> <td>Direct observation of the candidate</td> </tr> </table>		evidence portfolio	Review of evidence collected and submitted by the candidate (for example: documents or product samples)		written knowledge assessment	Written questions to test knowledge		competency conversation	Opportunity to explore a range of issues and tailor questions to suit and individual or group		practical assessment	Direct observation of the candidate
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	competency conversation	Opportunity to explore a range of issues and tailor questions to suit and individual or group											
	practical assessment	Direct observation of the candidate											
<p><b>Related units</b></p>	<p>The following units can be assessed together:</p> <ul style="list-style-type: none"> <li>• CA2 Perform Spur-less Climbing and Pruning with Hand Saw</li> <li>• CA3 Perform Climbing with Spurs for Sectional Removal</li> <li>• CA4 Perform Rigging</li> <li>• CA5 Perform Post-Climb</li> <li>• CA7 Communicate Effectively in the Workplace</li> </ul>												



<b>Knowledge to be assessed</b>	<p>For this unit, a competent Climbing Arborist must know:</p> <ul style="list-style-type: none"> <li>• How to read and interpret work order to identify tasks and responsibilities</li> <li>• How to select equipment appropriate for the task (PPE, climbing, and rigging equipment)</li> <li>• Applicable WorkSafeBC regulations</li> <li>• Applicable Municipal, Provincial, and Federal regulations</li> <li>• How to conduct a Hazard Assessment</li> <li>• How to conduct a visual assessment of the tree and the site</li> <li>• How to identify tree and site conditions</li> <li>• How to evaluate hazard assessment in accordance with the work order</li> <li>• The Hierarchy of Controls</li> <li>• Risk mitigation strategies and regulatory requirements</li> <li>• How to develop an emergency response plan</li> <li>• How to develop a safe work plan</li> <li>• How to communicate the safe work plan with crew and site personnel</li> <li>• How to select the appropriate tools and equipment for the task(s)</li> <li>• The required safety features for specific equipment</li> <li>• How to establish safe work zones</li> <li>• Regulatory requirements of an emergency response plan</li> <li>• Rigging principles and governing regulations</li> <li>• The principles of ergonomics and safe body positioning</li> </ul>
<b>Skills to be assessed</b>	<p>For this unit, a competent Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Identify tasks and responsibilities from work order</li> <li>• Select appropriate climbing and rigging equipment for the task(s)</li> <li>• Inspect all PPE, climbing and rigging equipment required for the task(s) in accordance with industry safe work practices and manufacturer's specifications</li> <li>• Conduct a hazard assessment for tree and site</li> <li>• Develop a safe work plan including all the required elements</li> <li>• Document and communicate safe work plan to crew and site personnel</li> <li>• Establish safe work zone</li> <li>• Confirm emergency response plan is appropriate and all required elements are in place</li> <li>• Select appropriate friction control device for the task(s)</li> <li>• Use safe work positioning in relation to equipment being used</li> </ul>
<b>Common skills to be assessed</b>	<p>For this unit, a competent Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Use industry safe work practices</li> <li>• Use industry approved practices</li> <li>• Work in an orderly manner, meeting timelines for tasks</li> <li>• Proactively deal with everyday problems</li> <li>• Read, understand, and follow directions and instructions</li> <li>• Give directions and instructions to others</li> <li>• Apply effective communication skills</li> </ul>
<b>Critical evidence to demonstrate competency</b>	<p>For this unit, a Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Read and interpret work order</li> <li>• Assess tree and site for hazards</li> <li>• Inspect all PPE</li> <li>• Develop an appropriate safe work plan(s) for the task(s)</li> <li>• Communicate safe work plan for the task to crew and site personnel</li> <li>• Safely secure the work zone</li> <li>• Inspect every component within the climbing system</li> </ul>



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| <ul style="list-style-type: none"><li>• Demonstrate appropriate knots used with climbing system</li><li>• Inspect rigging hardware, slings, rope tools, and ropes for rigging</li><li>• Demonstrate knowledge of rejection criteria for climbing and rigging equipment in accordance with industry safe work practices and manufacturer's specifications</li><li>• Install climbing systems incorporating friction control devices appropriate for task(s)</li><li>• Demonstrate safe chainsaw start-up and knowledge of handling and safety features</li><li>• Comply with all regulations as per authorities having jurisdiction</li></ul> |
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TITLE	<b>CA2 Perform Spur-less Climbing and Pruning with Hand Saw</b>
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DESCRIPTION	<p>This unit is about:</p> <ul style="list-style-type: none"> <li>• Using safe and efficient techniques for spur-less climbing</li> <li>• Performing pruning tasks using a hand saw</li> <li>• Using safe and efficient rigging techniques</li> <li>• Demonstrating safe and efficient rope handling</li> <li>• Communicating effectively with crew and onsite personnel</li> <li>• Exiting the tree safely and efficiently</li> </ul> <p>Pre-requisites for this unit:</p> <ul style="list-style-type: none"> <li>• Arborist Technician – Certificate of Qualification</li> <li>• Climbing Arborist Certificate of Qualification Exam – minimum 70%</li> <li>• CA1 Perform Pre-Climbing Inspection/Groundwork</li> </ul>
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Elements	Performance Criteria
<b>5. Select and install friction control devices</b>	<p>5.1. Select <b>friction control device</b> appropriate to climbing task and in accordance with work plan</p> <p>5.2. Select <b>friction control device</b> appropriate to climbing task and in accordance with work plan</p> <p>5.3. Inspect equipment for wear, maintenance, and care according to industry safe work practices and manufacturer's specifications</p> <p>5.4. Attach friction control devices according to <b>attachment procedures</b> and manufacturer's specifications</p> <p>5.5. Install climbing system incorporating friction control devices in accordance with industry safe work practices and manufacturer's</p> <p>5.6. Install rigging system incorporating friction control devices in accordance with industry safe work practices and manufacturer's</p> <p>5.7. Demonstrate safe work position in relation to equipment and activities in accordance with work plan</p>
<b>6. Prepare for pruning</b>	<p>6.1. Select tie-in point and ascending route according to work plan and industry safe work practices</p> <p>6.2. Select <b>spur-less climbing technique</b> appropriate to tree requirements and industry approved practices</p> <p>6.3. Ascend tree and establish <b>work position</b> according to work plan, jurisdictional legislation and industry safe work practices</p>



<p><b>7. Perform pruning</b></p>	<p>7.1. Prune trees using industry approved <b><i>pruning practices</i></b> and <b><i>tools</i></b> according to work plan, jurisdictional legislation and industry safe work practices</p> <p>7.2. Use appropriate <b><i>climbing techniques</i></b> to move around the canopy according to industry approved pruning procedures and industry safe work practices</p> <p>7.3. Use appropriate <b><i>rigging equipment, hardware and techniques</i></b> in accordance with work plan and jurisdictional safety legislation</p> <p>7.4. Communicate work progress with ground crew according to selected <b><i>communication methods</i></b> and established industry safe work practices</p>
<p><b>8. Complete tree work</b></p>	<p>8.1. Descend tree to a predetermined landing zone according to work plan and industry safe work practices</p> <p>8.2. Retrieve climbing and rigging gear in a controlled manner according to industry safe work practices</p>

### Range of Variables

The information below provides additional detail about key terms that appear in ***bold and italics*** in the Performance Criteria.

***Friction control devices*** may include:

- Port-a-wrap
- Hobbs or GRCS
- Figure 8
- Muenster hitch
- Tree wraps

***Attachment procedures*** must include:

- Functions
- Limitations
- Selection of correct devices for specific situations
- Dynamic load vectors, shock loading, angles of incidence, force, mass and impact
- Bend ratios of rope

***Spur-less climbing technique*** may include:

- Single rope technique (SRT)
- Dynamic rope technique (Doubled rope technique)

***Work position*** may include:

- Tie-in points
- Safety line installation
- Climbing system advancement
- False crotches
- Advance work positioning lanyard
- Limb walking
- Work positioning redirects
- Moving around the canopy
- Controlled movement and descent
- Appropriate knots



**Pruning practice** may include:

- Cleaning
- Thinning
- Raising
- Reduction
- Restoring

**Climbing techniques** may include:

- Tied in overhead
- Rope management
- Lanyard use
- Balance and control

**Rigging equipment, hardware and techniques** may include:

- Safety
- Lanyard
- Body position
- Ropes
- Blocks
- Slings
- Friction saver devices
- Coaching of ground personnel
- Rope management
- Rope inspection and maintenance
- WorkSafeBC rejection criteria

**Tools** may include:

- Hand saw
- Pruning pole
- Pole saw

**Communication methods** may include:

- Communicating with ground crew
  - “Stand clear”
  - Coaching ground personnel
  - Periodic visuals
  - Hand signals



Assessment Guide

<p><b>Assessment methods</b></p>	<p>The following assessment methods may be used to assess this unit:</p> <ul style="list-style-type: none"> <li>  evidence portfolio      Review of evidence collected and submitted by the candidate (for example: documents or product samples)         </li> <li>  written knowledge assessment      Written questions to test knowledge         </li> <li>  competency conversation      Opportunity to explore a range of issues and tailor questions to suit and individual or group         </li> <li>  practical assessment      Direct observation of the candidate         </li> </ul>
<p><b>Related units</b></p>	<p>The following units can be assessed together:</p> <ul style="list-style-type: none"> <li>• CA1 Perform Pre-Climbing Inspection/Groundwork</li> <li>• CA4 Perform Rigging</li> <li>• CA5 Perform Post-Climb</li> <li>• CA7 Communicate Effectively in the Workplace</li> </ul>
<p><b>Knowledge to be assessed</b></p>	<p>For this unit, a competent Climbing Arborist must know:</p> <ul style="list-style-type: none"> <li>• Hazards and approaches to minimize risks</li> <li>• How to communicate with clients, ground crew and onsite personnel</li> <li>• WorkSafeBC regulations and workplace requirements</li> <li>• Acceptable wear levels and wear points of PPE, climbing and rigging equipment</li> <li>• How to install friction control devices for climbing systems</li> <li>• Spur-less climbing techniques</li> <li>• Industry approved pruning techniques appropriate for task(s) and specific tree conditions</li> <li>• How to utilize a variety of tie-in points and appropriate knots</li> <li>• How to utilize rope advancement and friction techniques</li> <li>• How to install false crotches</li> <li>• Techniques of line installation, limb walking, work positioning</li> <li>• Techniques of redirects, controlled movement, and descent</li> <li>• Rejection criteria for ropes and equipment</li> </ul>
<p><b>Skills to be assessed</b></p>	<p>For this unit, a competent Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Select and inspect climbing equipment appropriate for task(s)</li> <li>• Set-up, enter tree, and reach predetermined tie-in point(s)</li> <li>• Safely and efficiently use climbing system(s)</li> <li>• Safely and efficiently use friction control devices for climbing systems</li> <li>• Safely and efficiently use rigging system(s)</li> <li>• Select and use a friction saver device(s) as required</li> <li>• Perform pruning using a hand saw</li> <li>• Move around canopy in an safe and efficient manner</li> <li>• Demonstrate safe and efficient climbing and rigging rope management</li> <li>• Communicate effectively with ground crew while in the tree</li> </ul>



<b>Common skills to be assessed</b>	<p>For this unit, a competent Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Use industry safe work practices</li> <li>• Use industry approved practices</li> <li>• Work in an orderly manner, meeting timelines for tasks</li> <li>• Proactively deal with everyday problems</li> <li>• Read, understand, and follow directions and instructions</li> <li>• Give directions and instructions to others</li> <li>• Apply effective communication skills</li> </ul>
<b>Critical evidence to demonstrate competency</b>	<p>For this unit, a Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Select and inspect PPE, climbing and rigging equipment appropriate for task(s)</li> <li>• Set-up, enter tree, and reach predetermined tie-in point(s) using a safe and efficient climbing system, fluid movements, good body positioning, and use of energy</li> <li>• Select and install friction device appropriate for task(s)</li> <li>• Perform cleaning, thinning, raising, reduction, and/or restoring the canopy of trees according to industry approved pruning practices and specific tree requirements</li> <li>• Use hand saw safely</li> <li>• Demonstrate proper body positioning when using hand saw</li> <li>• Safely handle and store hand saw when not in use</li> <li>• Select type of cut required according to size of the branch and according to industry approved pruning practices</li> <li>• Produce a quality finished cut</li> <li>• Move around in canopy using tie-ins overhead, proper rope management, lanyard use, balance and control</li> <li>• Communicated with ground crew in a clear manner using “stand-clears”, coaching ground person, and/or periodic visuals</li> <li>• Demonstrate good rope management for climbing and rigging ropes</li> <li>• Remove climbing equipment from the tree in a safe and controlled manner</li> </ul>



<b>TITLE</b>	<b>CA3 Perform Climbing with Spurs for Sectional Removal</b>
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<b>DESCRIPTION</b>	<p>This unit is about:</p> <ul style="list-style-type: none"> <li>• Using safe and efficient techniques for spur climbing</li> <li>• Demonstrated safe and appropriate chainsaw handling</li> <li>• Demonstrated safe and appropriate cuts</li> <li>• Performing sectional removal</li> <li>• Demonstrating safe and efficient rope handling</li> <li>• Communicating effectively with crew and onsite personnel</li> <li>• Exiting the tree safely and efficiently</li> </ul> <p>Pre-requisites for this unit:</p> <ul style="list-style-type: none"> <li>• Arborist Technician – Certificate of Qualification</li> <li>• Climbing Arborist Certificate of Qualification Exam – minimum 70%</li> <li>• CA1 Perform Pre-Climbing Inspection/Groundwork</li> <li>• CA2 Perform Spur-less Climbing and Pruning with Hand Saw</li> </ul>
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<b>Elements</b>	<b>Performance Criteria</b>
<b>9. Prepare for sectional removal operation</b>	<p>9.1. Select tie-in point and ascending route according to work plan and industry safe work practices</p> <p>9.2. Install secure false crotch for climbing appropriate to tree anatomy in accordance with work plan and industry safe work practices</p>
<b>10. Perform removal operation</b>	<p>10.1. Remove section(s) of the tree using <b>chain saw</b> to make the appropriate <b>cut(s)</b> in accordance with work plan and industry safe work practices</p> <p>10.2. Use appropriate <b>climbing techniques</b> to move around the canopy in accordance with industry approved pruning practices and industry safe work practices</p> <p>10.3. Use appropriate rigging equipment, hardware and techniques in accordance with work plan and jurisdictional safety legislation</p> <p>10.4. Communicate work progress with ground crew in accordance with selected communication methods and industry safe work practices</p>
<b>11. Complete tree work</b>	<p>11.1. Descend tree to a predetermined landing zone in accordance with work plan and industry safe work practices</p> <p>11.2. Retrieve climbing and rigging gear in a controlled manner in accordance with established industry safe work practices</p>



## Range of Variables

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The information below provides additional detail about key terms that appear in ***bold and italics*** in the Performance Criteria.

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***Cut(s)*** may include:

- Hinge cut
- Jump cut
- Snap cut (Bypass cut)
- Bore cut

***Chain saw*** may include:

- Climbing chain saws
- Mid-size bucking chain saws
- Safety
- Lanyard
- Body position
- Size of branch
- Type of cut used
- Quality of finished cut
- Handling of saw in use
- Storing of saw when not in use
- Poise and control

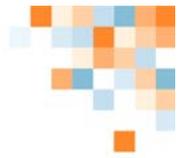
***Climbing technique*** may include:

- Tie-in points
  - Line installation
  - Climbing system advancement
  - False crotches
  - Advance work positioning lanyard
  - Limb walking
  - Work positioning redirects
  - Controlled movement and descent
  - Appropriate knots
  - Rope management
  - Attach, sharpen and maintain spurs
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Assessment Guide

<p><b>Assessment methods</b></p>	<p>The following assessment methods may be used to assess this unit:</p> <ul style="list-style-type: none"> <li>  evidence portfolio      Review of evidence collected and submitted by the candidate (for example: documents or product samples)         </li> <li>  written knowledge assessment      Written questions to test knowledge         </li> <li>  competency conversation      Opportunity to explore a range of issues and tailor questions to suit and individual or group         </li> <li>  practical assessment      Direct observation of the candidate         </li> </ul>
<p><b>Related units</b></p>	<p>The following units can be assessed together:</p> <ul style="list-style-type: none"> <li>• CA1 Perform Pre-Climbing Inspection/Groundwork</li> <li>• CA4 Perform Rigging</li> <li>• CA5 Perform Post-Climb</li> <li>• CA7 Communicate Effectively in the Workplace</li> </ul>
<p><b>Knowledge to be assessed</b></p>	<p>For this unit, a competent Climbing Arborist must know:</p> <ul style="list-style-type: none"> <li>• Hazards and approaches to minimize risks</li> <li>• How to communicate with clients, ground crew and onsite personnel</li> <li>• WorkSafeBC regulations and workplace requirements</li> <li>• Acceptable wear levels and wear points of PPE, climbing and rigging equipment</li> <li>• Spur climbing techniques</li> <li>• Spur use and maintenance</li> <li>• Industry approved chainsaw handling appropriate to task and specific tree conditions</li> <li>• Industry approved cutting techniques appropriate for task(s) and specific tree conditions</li> <li>• How to utilize a variety of tie-in points and appropriate knots</li> <li>• How to utilize rope advancement and friction techniques</li> <li>• How to install false crotches</li> <li>• Techniques of line installation, limb walking, and work positioning</li> <li>• Techniques of redirects, controlled movement and descent</li> <li>• How to utilize a variety of tie-in points and appropriate knots</li> <li>• Rejection criteria for ropes and equipment</li> </ul>
<p><b>Skills to be assessed</b></p>	<p>For this unit, a competent Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Select and inspect PPE, climbing and rigging equipment appropriate for task(s)</li> <li>• Set-up, enter tree, and reach predetermined tie-in point</li> <li>• Safely and efficiently use a climbing system(s)</li> <li>• Safely and efficiently use a rigging system(s) as required</li> <li>• Safely and efficiently use a friction saver device(s) as required</li> <li>• Execute appropriate cuts using chainsaw</li> <li>• Use chainsaw in safe and efficient manner</li> <li>• Move around canopy in a safe and efficient manner</li> <li>• Demonstrate safe and efficient climbing and rigging rope management</li> <li>• Communicate effectively with ground crew while in the tree</li> </ul>



<p><b>Common skills to be assessed</b></p>	<p>For this unit, a competent Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Use industry safe work practices</li> <li>• Use industry approved practices</li> <li>• Work in an orderly manner, meeting timelines for tasks</li> <li>• Proactively deal with everyday problems</li> <li>• Read, understand, and follow directions and instructions</li> <li>• Give directions and instructions to others</li> <li>• Apply effective communication skills</li> </ul>
<p><b>Critical evidence to demonstrate competency</b></p>	<p>For this unit, a Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Select and inspect PPE, climbing and rigging equipment appropriate for task(s)</li> <li>• Climb tree using spurs to reach predetermined tie-in point using safe and efficient climbing techniques, fluid movements, good body positioning, and use of energy</li> <li>• Install and secure false crotch at predetermined height</li> <li>• Move around canopy in a safe and efficient manner</li> <li>• Use appropriate rigging system(s)</li> <li>• Use appropriate rigging techniques</li> <li>• Move around in canopy using tie-ins overhead, proper rope management, lanyard use, balance and control</li> <li>• Use chainsaw safely with lanyard</li> <li>• Use proper body positioning, poise and control when using chainsaw</li> <li>• Safely handle and store chainsaw when not in use</li> <li>• Safely and efficiently execute a hinge cut with a chainsaw</li> <li>• Safely and efficiently execute a jump cut with a chainsaw</li> <li>• Safely and efficiently execute a snap cut with a chainsaw</li> <li>• Produce a quality finished cut</li> <li>• Demonstrate safe and efficient climbing and rigging rope management</li> <li>• Communicate with ground crew in a clear manner using “stand-clears”, coaching ground person, and/or periodic visuals</li> <li>• Remove climbing equipment from the tree in a controlled manner</li> </ul>



TITLE	<b>CA4 Perform Rigging</b>
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DESCRIPTION	<p>This unit is about:</p> <ul style="list-style-type: none"> <li>• Preparing the worksite and equipment for rigging tasks</li> <li>• Perform rigging operations (on the ground and aloft)</li> <li>• Demonstrating safe and efficient rope handling</li> <li>• Communicating effectively with crew and onsite personnel</li> </ul> <p>Pre-requisites for this unit:</p> <ul style="list-style-type: none"> <li>• Arborist Technician – Certificate of Qualification</li> <li>• Climbing Arborist Certificate of Qualification Exam – minimum 70%</li> <li>• CA1 Perform Pre-Climbing Inspection/Groundwork</li> <li>• CA2 Perform Spur-less Climbing and Pruning with Hand Saw</li> </ul>
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**Elements**

**Performance Criteria**

**12. Perform rigging operations**

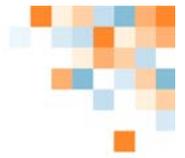
- 12.1. Select, inspect and install components for a **3:1 mechanical advantage system** with **self-adjusting load lock** appropriate for task, in accordance with industry safe work practices
- 12.2. Select, inspect and install **components** used in a rigging system for lifting, lowering, or decelerating loads in accordance with industry safe industry safe work practices
- 12.3. Demonstrate **safe worker position** accordance with industry safe work practices
- 12.4. Use safe and efficient climbing and rigging **rope management**
- 12.5. Communicate work progress with ground crew in accordance with selected communication methods and industry safe work practices

**Range of Variables**

The information below provides additional detail about key terms that appear in **bold and italics** in the Performance Criteria.

**3:1 mechanical advantage system** may include:

- Hardware (shackles, pulleys, etc.)
- Ropes
- Blocks
- Rope tools
- Self-adjusting load lock
- Carabiners
- Knots
- Uses:
  - Tensioning
  - Lifting, pulling, decelerating loads
- Inspection/rejection criteria for ropes and equipment
- Maintenance and storage requirements for ropes and equipment



**Self-adjusting load lock** may include:

- Mechanical devices
- Rope tools (Prussik loops and other friction control knots)

**Safe worker position** may include:

- In relation equipment location
- Climber and groundcrew

**Rigging components** may include:

- Ropes
- Pulley blocks
- Rope tools
- Carabiners
- Knots
- Tag (guide) lines
- Slings
- Hardware (shackles, pulleys, etc.)
- Mechanical friction control devices such as
  - Port-a-wrap
  - Hobbs or GRCS
  - Figure 8
- Inspection/rejection criteria for ropes and equipment
- Maintenance and storage requirements for ropes and equipment

**Rope management** may include:

- Rope positioning
- Managing slack
- Appropriate exit strategy/communicated descent
- Managing angles

### Assessment Guide

<b>Assessment methods</b>	<p>The following assessment methods may be used to assess this unit:</p> <ul style="list-style-type: none"> <li>  evidence portfolio      Review of evidence collected and submitted by the candidate (for example: documents or product samples)                 </li> <li>  written knowledge assessment      Written questions to test knowledge                 </li> <li>  competency conversation      Opportunity to explore a range of issues and tailor questions to suit and individual or group                 </li> <li>  practical assessment      Direct observation of the candidate                 </li> </ul>
<b>Related units</b>	<p>The following units can be assessed together:</p> <ul style="list-style-type: none"> <li>• CA1 Perform Pre-Climbing Inspection/Groundwork</li> <li>• CA2 Perform Spur-less Climbing and Pruning with Hand Saw</li> <li>• CA3 Perform Climbing with Spurs for Sectional Removal</li> <li>• CA4 Perform Rigging</li> <li>• CA5 Perform Post-Climb</li> <li>• CA7 Communicate Effectively in the Workplace</li> </ul>



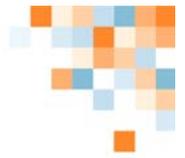
<b>Knowledge to be assessed</b>	<p>For this unit, a competent Climbing Arborist must know:</p> <ul style="list-style-type: none"> <li>• Hazards and approaches to minimize risks</li> <li>• How to communicate with clients, ground crew and onsite personnel</li> <li>• WorkSafeBC regulations and workplace requirements</li> <li>• Acceptable wear levels and wear points of PPE, climbing and rigging equipment</li> <li>• How to select the appropriate tools and equipment for the task(s)</li> <li>• The required safety features for specific equipment</li> <li>• Rigging techniques, principles and governing regulations</li> <li>• The application, installation, and use of components for a 3:1 mechanical advantage system with self-adjusting load lock for pulling or lift a load</li> <li>• The application, installation, and use of components used in a rigging system for lifting, lowering, or decelerating loads</li> <li>• The principles of ergonomics and safe body positioning</li> <li>• Rejection criteria for ropes and equipment</li> </ul>
<b>Skills to be assessed</b>	<p>For this unit, a competent Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Select and inspect all PPE, climbing and rigging equipment required for the task(s)</li> <li>• Select and install components for a 3:1 mechanical advantage system with self-adjusting load lock appropriate for the task(s) including: <ul style="list-style-type: none"> <li>○ Pulleys with sufficient style and ratings for task(s)</li> <li>○ Rope diameter size appropriate for selected pulley</li> <li>○ Rope tools and carabiners of sufficient size and ratings for task(s)</li> </ul> </li> <li>• Select and install components used in a rigging system for lifting, lowering, or decelerating loads including: <ul style="list-style-type: none"> <li>○ Friction control device and connecting rope appropriate to task and system</li> <li>○ Pulley block and connecting rope appropriate to task and system</li> <li>○ Rope appropriate to task and system</li> <li>○ Installation of friction control device according to attachment procedures and manufacturer's specifications</li> <li>○ Installation of pulley block and connecting rope using appropriate knots</li> <li>○ Installation of rope into system, use of appropriate knots and friction control device</li> </ul> </li> <li>• Safely and efficiently use a rigging system(s) on the ground and while aloft</li> <li>• Use safe work positioning in relation to equipment being used</li> <li>• Demonstrate safe and efficient climbing and rigging rope management</li> <li>• Communicate effectively with ground crew while in the tree</li> </ul>
<b>Common skills to be assessed</b>	<p>For this unit, a competent Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Use industry safe work practices</li> <li>• Use industry approved practices</li> <li>• Work in an orderly manner, meeting timelines for tasks</li> <li>• Proactively deal with everyday problems</li> <li>• Read, understand, and follow directions and instructions</li> <li>• Give directions and instructions to others</li> <li>• Apply effective communication skills</li> </ul>



**Critical evidence to demonstrate competency**

For this unit, a Climbing Arborist must be able to:

- Select and inspect PPE, climbing and rigging equipment appropriate for task(s)
- Select, inspect, and install components for a 3:1 mechanical advantage system with self-adjusting load lock for pulling or lift a load appropriate to task(s) including:
  - Pulleys with sufficient style and ratings for task(s)
  - Rope diameter size appropriate for selected pulley
  - Rope tools and carabiners of sufficient size and ratings for task(s)
- Select, inspect, and install components used in a rigging system for lifting, lowering, or decelerating loads appropriate to task(s) including:
  - Friction control device and connecting rope appropriate to task and system
  - Pulley block and connecting rope appropriate to task and system
  - Rope appropriate to task and system
  - Installation of friction control device according to attachment procedures and manufacturer's specifications
  - Installation of pulley block and connecting rope using appropriate knots
  - Installation of rope into system, use of appropriate knots and friction control device
- Demonstrate knowledge of rejection criteria for climbing and rigging equipment in accordance with industry safe work practices and manufacturer's specifications
- Use appropriate rigging system(s) while on the ground and aloft
- Use appropriate rigging techniques while on the ground and aloft
- Demonstrate safe and efficient climbing and rigging rope management
- Communicate with ground crew in a clear manner using "stand-clears", coaching ground person, and/or periodic visuals
- Remove rigging equipment from the tree in a controlled manner
- Comply with all regulations as per authorities having jurisdiction



TITLE	<b>CA5 Perform Post-Climb</b>
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DESCRIPTION	<p>This unit is about:</p> <ul style="list-style-type: none"> <li>• Conducting post-climb inspections of tree and site</li> <li>• Ensuring all tasks including clean-up have been completed</li> <li>• Inspecting tools and equipment in accordance with industry safe work practices and manufacturer’s specifications</li> <li>• Storing tools and equipment in a safe and effective manner</li> <li>• Communicating effectively with client, crew, and onsite personnel</li> </ul> <p>Pre-requisites for this unit:</p> <ul style="list-style-type: none"> <li>• Arborist Technician – Certificate of Qualification</li> <li>• Climbing Arborist Certificate of Qualification Exam – minimum 70%</li> <li>• CA1 Perform Pre-Climbing Inspection/Groundwork</li> <li>• CA2 Perform Spur-less Climbing and Pruning with Hand Saw</li> <li>• CA3 Perform Climbing with Spurs for Sectional Removal</li> </ul>
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**Elements**

**Performance Criteria**

<b>13. Conduct post-climb inspection</b>	<p>13.1. Account for all crew members as per industry safe work practices and jurisdictional safety legislation</p> <p>13.2. Conduct an inner and outer (360) <b>visual post-climb assessment of tree</b> in accordance with industry safe work practices</p> <p>13.3. Conduct an inner and outer (360) <b>visual post-climb assessment of site</b> in accordance with industry safe work practices</p> <p>13.4. Conduct inspection to ensure completion of all tasks on the work order in accordance with company policies and industry safe work practices</p>
<b>14. Inspect and store tools and equipment used to perform the task(s)</b>	<p>14.1. Check and confirm all safety features as per manufacturer’s specifications and authorities having jurisdiction</p> <p>14.2. Verify equipment meets manufacturer’s specifications for re-use</p> <p>14.3. Report any defects or faults with tools or equipment according to industry safe work practices and authorities having jurisdiction</p> <p>14.4. Tag out/lock out according to manufacturer’s specifications and jurisdictional safety legislation</p> <p>14.5. Store tools and equipment used as per manufacturer’s specifications and jurisdictional legislation</p>



## Range of Variables

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The information below provides additional detail about key terms that appear in ***bold and italics*** in the Performance Criteria.

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***Visual post-climb assessment of tree*** must include:

- Fungal fruiting bodies
- Decay
- Structural defects
- Cracks
- Inclusions
- Dead wood
- Hangers
- Root lifting

***Visual post-climb assessment of site*** must include:

- Structures (buildings, decks)
- Vehicles
- Sidewalks and driveways
- Septic and drain fields
- Lawn ornaments, furniture, lines, etc.
- Young trees, shrubs, flower beds
- Satellite dishes or antennae
- Electrical hazards
- Wet and muddy areas
- Poisonous plants
- Extreme slopes
- People (clients, bystanders)



### Assessment Guide

<b>Assessment methods</b>	<p>The following assessment methods may be used to assess this unit:</p> <ul style="list-style-type: none"> <li>  evidence portfolio      Review of evidence collected and submitted by the candidate (for example: documents or product samples)         </li> <li>  written knowledge assessment      Written questions to test knowledge         </li> <li>  competency conversation      Opportunity to explore a range of issues and tailor questions to suit and individual or group         </li> <li>  practical assessment      Direct observation of the candidate         </li> </ul>
<b>Related units</b>	<p>The following units can be assessed together:</p> <ul style="list-style-type: none"> <li>• CA1 Perform Pre-Climbing Inspection/Groundwork</li> <li>• CA2 Perform Spur-less Climbing and Pruning with Hand Saw</li> <li>• CA3 Perform Climbing with Spurs for Sectional Removal</li> <li>• CA4 Perform Rigging</li> <li>• CA7 Communicate Effectively in the Workplace</li> </ul>
<b>Knowledge to be assessed</b>	<p>For this unit, a competent Climbing Arborist must know:</p> <ul style="list-style-type: none"> <li>• How to identify post-job hazards such as hangers</li> <li>• How to address client concerns such as lawn divots, property damage, debris and clean-up procedures</li> <li>• Effective communication skills for jobsite</li> <li>• WorkSafeBC rejection criteria for ropes and equipment</li> <li>• Equipment storage requirements</li> </ul>
<b>Skills to be assessed</b>	<p>For this unit, a competent Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Communicate with clients, crew and onsite personnel</li> <li>• Inspect job site for post-job hazards</li> <li>• Clean-up jobsite upon completion of task(s)</li> <li>• Inspect equipment and make ready for next use</li> <li>• Store equipment safely and effectively</li> </ul>
<b>Common skills to be assessed</b>	<p>For this unit, a competent Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Use industry safe work practices</li> <li>• Use industry approved practices</li> <li>• Work in an orderly manner, meeting timelines for tasks</li> <li>• Proactively deal with everyday problems</li> <li>• Read, understand, and follow directions and instructions</li> <li>• Give directions and instructions to others</li> <li>• Apply effective communication skills</li> </ul>
<b>Critical evidence to demonstrate competency</b>	<p>For this unit, a Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Conduct a post-job assessment</li> <li>• Complete all task(s) including clean-up</li> <li>• Inspect climbing equipment and ropes in accordance with industry safe work practices and manufacturer's specifications</li> <li>• Store equipment safely and effectively</li> <li>• Communicate effectively during all procedures</li> </ul>



<b>TITLE</b>	<b>CA6 Perform Aerial Rescue</b>
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<b>DESCRIPTION</b>	<p>This unit is about:</p> <ul style="list-style-type: none"> <li>• Developing an emergency response plan</li> <li>• Performing a canopy and spar pole aerial rescue following the emergency response plan to a minimum of 20 ft./7m</li> <li>• Communicating with crew, onsite personnel, emergency response services, and regulatory officials</li> <li>• Completing required documentation</li> </ul> <p>Pre-requisites for this unit:</p> <ul style="list-style-type: none"> <li>• Arborist Technician – Certificate of Qualification</li> <li>• Climbing Arborist Certificate of Qualification Exam – minimum 70%</li> <li>• CA1 Perform Pre-Climbing Inspection/Groundwork</li> <li>• CA2 Perform Spur-less Climbing and Pruning with Hand Saw</li> <li>• CA3 Perform Climbing with Spurs for Sectional Removal</li> </ul>
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<b>Elements</b>	<b>Performance Criteria</b>
<b>15. Develop the emergency response plan</b>	15.1. Identify site and tree hazards in accordance with requirements for industry safe work practices and authorities having jurisdiction 15.2. Identify potential hazards to rescuer according to the tree and site hazard assessment 15.3. Identify equipment required for rescue in accordance with hazard assessment
<b>16. Perform a canopy and spar pole rescue at a minimum of 20 ft./7 m</b>	16.1. Ensure industry safe work practices are followed in accordance with the <b><i>emergency response plan</i></b> 16.2. Select appropriate <b><i>rescue procedures</i></b> in accordance with emergency response plan 16.3. Perform appropriate <b><i>patient management</i></b> during rescue
<b>17. Document emergency response activities</b>	17.1. Complete forms and documentation in accordance with the authorities having jurisdiction

### Range of Variables

The information below provides additional detail about key terms that appear in ***bold and italics*** in the Performance Criteria.

***Emergency response plan*** may include:

- Conditions
- Procedures
- Criteria
- Equipment needed
- Duties of each worker
- Location of equipment needed



**Rescue procedures** may include:

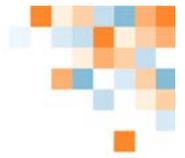
- Rescue from a spar tree
- SRT rescue and double rope system
- Rescue climbing kit
- Ascending on own rope
- Rescue of an unconscious victim and/or an injured victim
  - Ascending on injured climber’s rope
  - Assess injured person’s condition
  - Determine appropriate action
- Using false crotches
  - Single-stem rescue (spar pole)

**Patient management** may include:

- Appropriate communication and/or directions to injured climber
- Handling and support of injured climber
- Appropriate casualty care
- Control of self and casualty during descent
- Touchdown appropriate for injury
- Appropriate communication and/or directions to EMT

**Assessment Guide**

<b>Assessment methods</b>	<p>The following assessment methods may be used to assess this unit:</p> <ul style="list-style-type: none"> <li> evidence portfolio      Review of evidence collected and submitted by the candidate (for example: documents or product samples)</li> <li> written knowledge assessment      Written questions to test knowledge</li> <li> competency conversation      Opportunity to explore a range of issues and tailor questions to suit and individual or group</li> <li> practical assessment      Direct observation of the candidate</li> </ul>
<b>Related units</b>	<p>The following units can be assessed together:</p> <ul style="list-style-type: none"> <li>• CA7 Communicate Effectively in the Workplace</li> </ul>
<b>Knowledge to be assessed</b>	<p>For this unit, a competent Climbing Arborist must know:</p> <ul style="list-style-type: none"> <li>• What PPE, climbing and rigging equipment may be required</li> <li>• How to develop and communicate an emergency response plan</li> <li>• Operating and safety components of a lift-truck</li> <li>• Hazards and approaches to minimize risk</li> <li>• WorkSafeBC regulations and workplace requirements</li> <li>• Required safety equipment for worksites</li> <li>• How select and inspect equipment including PPE and climbing gear</li> <li>• Climbing techniques (spur-less and with spurs)</li> <li>• Evacuation/rescue techniques</li> <li>• How a person may require rescue while rappelling and not be easily reached</li> <li>• How not to become the “second victim”</li> </ul>



<p><b>Skills to be assessed</b></p>	<p>For this unit, a competent Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Select and use PPE, climbing and rigging equipment as required</li> <li>• Develop and communicate an Emergency Response Plan</li> <li>• Execute Emergency Response Plan (ERP)</li> <li>• Safely secure work zone</li> <li>• Assess the situation for hazards</li> <li>• Decide if it is necessary to call for emergency assistance</li> <li>• Safely ascend to rescue</li> <li>• Assess injured person</li> <li>• Safely bring injured person down</li> <li>• Apply appropriate patient management during rescue</li> <li>• Administer patient care until Emergency Medical Services (EMS) takes over</li> <li>• Complete the necessary documentation from the Emergency Response Plan</li> </ul>
<p><b>Common skills to be assessed</b></p>	<p>For this unit, a competent Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Use industry safe work practices</li> <li>• Proactively deal with emergency situations</li> <li>• Remain calm in emergency situations</li> <li>• Manage stressful situations effectively ensuring the safety of self and others</li> <li>• Read, understand, and follow directions and instructions</li> <li>• Give directions and instructions to others</li> <li>• Apply effective communication skills</li> </ul>
<p><b>Critical evidence to demonstrate competency</b></p>	<p>For this unit, a Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Select and use appropriate PPE, climbing and rigging equipment as required</li> <li>• Develop and execute the Emergency Response Plan (ERP)</li> <li>• Safely secure work zone</li> <li>• Assess the situation for hazards</li> <li>• Call for emergency assistance if required</li> <li>• Safely ascend to rescue</li> <li>• Safely bring the injured party down</li> <li>• Apply appropriate patient management during rescue</li> <li>• Administered patient care until Emergency Medical Services (EMS) takes over</li> <li>• Complete necessary documentation as detailed in the Emergency Response Plan</li> </ul>



<b>TITLE</b>	<b>CA7 Communicate Effectively in the Workplace</b>
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<b>DESCRIPTION</b>	<p>This unit is about:</p> <ul style="list-style-type: none"> <li>Communicating effectively in verbal and written formats with clients, crew, onsite personnel, emergency response services and regulatory officials</li> <li>Communicating effectively with ground crew while in the trees (hand signals, voice and visual)</li> </ul> <p>Pre-requisites for this unit:</p> <ul style="list-style-type: none"> <li>Arborist Technician – Certificate of Qualification</li> <li>Climbing Arborist Certificate of Qualification Exam – minimum 70%</li> </ul>
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Elements	Performance Criteria
<p><b>18. Communicate effectively in verbal and written formats</b></p>	<p>18.1. Communicate effectively with all <b>concerned parties</b> in the workplace in accordance with company policies and industry safe work practices</p> <p>18.2. Complete <b>workplace documentation and records</b> in accordance with company policies and industry safe work practices in accordance with authorities having jurisdiction</p> <p>18.3. Contact authorities having jurisdiction using information included in the emergency response plan</p> <p>18.4. Delegate work activities and brief crews in accordance with industry policies and industry safe work practices</p> <p>18.5. Demonstrate <b>leadership in the workplace</b> in accordance with industry policies and industry safe work practices</p>
<p><b>19. Communicate effectively while working in the trees</b></p>	<p>19.1. Use hand signals, voice and visual contact in accordance with safe work practices</p>

**Range of Variables**

The information below provides additional detail about key terms that appear in **bold and italics** in the Performance Criteria.

- Concerned parties** may include:
- Co-workers
  - Sub-trades
  - Clients
  - Neighbouring residents
  - Supervisors
  - Regulatory officials
- Workplace documentation and records** may include:
- Training records
  - Accident/incident reporting
  - Job plans
  - Tail-gate meetings
  - Risk management plans
  - Reports for management
  - Documentation for authorities having jurisdiction



**Leadership in the workplace** may include:

- Conflict resolution
- Leadership strategies
- Discipline (fair and progressive required by company policies or regulatory requirements – e.g. safety infractions)
- Performance feedback
- Reports as needed (e.g. accident reporting, training records, etc.)
- Training workers (including coaching, mentoring)

### Assessment Guide

<p><b>Assessment methods</b></p>	<p>The following assessment methods may be used to assess this unit:</p> <table border="0"> <tr> <td></td> <td>evidence portfolio</td> <td>Review of evidence collected and submitted by the candidate (for example: documents or product samples)</td> </tr> <tr> <td></td> <td>written knowledge assessment</td> <td>Written questions to test knowledge</td> </tr> <tr> <td></td> <td>competency conversation</td> <td>Opportunity to explore a range of issues and tailor questions to suit and individual or group</td> </tr> <tr> <td></td> <td>practical assessment</td> <td>Direct observation of the candidate</td> </tr> </table>		evidence portfolio	Review of evidence collected and submitted by the candidate (for example: documents or product samples)		written knowledge assessment	Written questions to test knowledge		competency conversation	Opportunity to explore a range of issues and tailor questions to suit and individual or group		practical assessment	Direct observation of the candidate
	evidence portfolio	Review of evidence collected and submitted by the candidate (for example: documents or product samples)											
	written knowledge assessment	Written questions to test knowledge											
	competency conversation	Opportunity to explore a range of issues and tailor questions to suit and individual or group											
	practical assessment	Direct observation of the candidate											
<p><b>Related units</b></p>	<p>The following units can be assessed together:</p> <ul style="list-style-type: none"> <li>• CA1 Perform Pre-Climb Inspection/Groundwork</li> <li>• CA2 Perform Spur-less Climbing and Pruning with Hand Saw</li> <li>• CA3 Perform Climbing with Spurs for Sectional Removal</li> <li>• CA4 Perform Rigging</li> <li>• CA5 Perform Post-Climb</li> <li>• CA6 Perform Aerial Rescue</li> </ul>												
<p><b>Knowledge to be assessed</b></p>	<p>For this unit, a competent Climbing Arborist must know:</p> <ul style="list-style-type: none"> <li>• Verbal methods of communication</li> <li>• Written methods of communication</li> <li>• Other non-verbal methods of communication such as hand signals</li> <li>• Industry safe work practices, policies, protocols and procedures related to methods of communication</li> </ul>												
<p><b>Skills to be assessed</b></p>	<p>For this unit, a competent Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Actively speak and listen with clients, management, crew, onsite personnel, and regulatory officials</li> <li>• Communicate through reading and writing with clients, management, crew, onsite personnel, and regulatory officials</li> <li>• Complete workplace documentation and records</li> <li>• Use hand signals and visual contact to communicate with ground crew</li> <li>• Follow policies and procedures related to use of communication devices and/or methods of communicating</li> </ul>												



<p><b>Common skills to be assessed</b></p>	<p>For this unit, a competent Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Use industry safe work practices</li> <li>• Work in an orderly manner, meeting timelines for tasks</li> <li>• Proactively deal with everyday problems</li> <li>• Read, understand, and follow directions and instructions</li> <li>• Give directions and instructions to others</li> <li>• Apply effective communication skills</li> </ul>
<p><b>Critical evidence to demonstrate competency</b></p>	<p>For this unit, a Climbing Arborist must be able to:</p> <ul style="list-style-type: none"> <li>• Communicate with clients, management, crew, onsite personnel, and regulatory officials using a variety of methods according to industry safe work practices</li> <li>• Collect information from relevant sources to undertake work responsibilities</li> <li>• Complete workplace documentation and records</li> <li>• Use communication devices in an appropriate manner</li> <li>• Use effective communication methods while in the trees to keep in contact with ground crew</li> </ul>