Scaffolder

Saskatchewan Occupational Standard

2025

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Saskatchewan Apprenticeship and Trade Certification Commission

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Recognition:
To promote transparency and consistency, this document has been adapted from the Red Seal Occupational Standard template (Employment and Social Development Canada).

FORWARD

The Saskatchewan Apprenticeship and Trade Certification Commission (SATCC) recognizes this Saskatchewan Occupational Standard (SOS) as the provincial standard for the Scaffolder trade.

Background
"Scaffolder" is this trade's official provincial occupational title approved by industry and became a recognized sub-trade in June of 2004. This Occupational Standard covers tasks performed by a Scaffolder whose occupational title has been identified by the province of Saskatchewan.

Standards have the following objectives:

- to describe and group the tasks performed by skilled workers;
- to identify which tasks are performed in the province of Saskatchewan;
- to develop instruments for use in the preparation of provincial Journeyperson examinations and assessment tools for the SATCC;
- to develop common tools for apprenticeship on-the-job and technical training in Saskatchewan;
- to facilitate the mobility of apprentices and skilled workers in Saskatchewan;
- to supply employers, employees, associations, industries, training institutions and governments with occupational standards.

Any questions, comments, or suggestions for changes, corrections, or revisions to this standard or any of its related products may be forwarded to:

Saskatchewan Apprenticeship and Trade Certification Commission
Saskatoon Branch Office
Program Development Department
603-45th Street West
Saskatoon, Saskatchewan S7L 5W5

ACKNOWLEDGEMENTS

The SATCC wish to express sincere appreciation for the contribution of the many tradespersons, Journeyperson, instructors, personal service establishments, professional associations, labour organizations, and all others who contributed to this publication.

Special thanks are offered to the following representatives who contributed greatly to the original draft of the standard and provided expert advice throughout its development:

Denny Hansen	Saskatchewan
Jack Lutze	Saskatchewan
Mike Malecki	Saskatchewan
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This standard was prepared by the Program Development Department of the SATCC. The coordinating, facilitating, and processing of this standard were undertaken by employees of the Program Development team of the SATCC.

STRUCTURE OF THE OCCUPATIONAL STANDARD

This standard contains the following sections:
Methodology: an overview of the process for development, review, validation and weighting of the standard

Description of the Scaffolder Trade: an overview of the trade's duties, work environment, job requirements, similar occupations, and career progression

Trends in the Scaffolder Trade: some of the trends identified by industry as being the most important for workers in this trade

Essential Skills Summary: an overview of how each of the nine essential skills is applied in this trade

Industry Expected Performance: description of the expectations regarding the level of performance of the tasks, including information related to specific codes, regulations and standards that must be observed

Pie Chart of Provincial Journeyperson Examination Weightings: a graph which depicts the provincial percentages of exam questions assigned to the major work activities

Task Matrix: a chart which outlines graphically the major work activities, tasks and sub-tasks of this standard

Major Work Activity (MWA): the largest division within the standard that is comprised of a distinct set of trade activities

Trends: Current observations or changes noticed within industry

Task: a general description of the task that describe distinct actions and activities within a major work activity

Range of Variables: elements and examples (not all inclusive) that provide a more in-depth description of a term used in the learning outcomes and learning objectives

Sub-Task: distinct actions that describe the activities within a task

Key Competencies: describes what should be learned relating to a sub-task while participating in technical or in-school training

Performance Criteria: topics to be covered during technical or in-school training in order to meet the learning outcomes for the sub-task

Appendix A – Acronyms: a list of acronyms used in the standard with their full name

Appendix B – Tools and Equipment: a non-exhaustive list of tools and equipment used in this trade

Appendix C – Glossary: definitions or explanations of selected technical terms used in the standard

METHODOLOGY

Development of the Standard
A draft standard is developed by a broad group of trade representatives, including tradespeople, journeypersons, instructors, and employers at a provincial workshop led by a SATCC facilitator. This draft standard breaks down all the tasks performed in the occupation and describes the knowledge and abilities required for a tradesperson to demonstrate competence in the trade.

Trade Survey
Stakeholders are asked to review and validate the activities described in the new standard. These stakeholders are invited to participate in this consultation through the SATCC.

Draft Review
The SOS (Saskatchewan Occupational Standard) Program Development team forwards a copy of the standard to industry representatives to review it. Their recommendations are assessed and incorporated into the standard.

Validation and Weighting
Industry representatives are also asked to validate and weight the document for the purpose of planning the makeup of the Provincial Journeyperson Examination for the trade. They validate and weight the major work activities (MWA), tasks and sub-tasks, of the standard as follows:

MWA	Each Industry representative assigns a percentage of questions to each MWA for an examination that would cover the entire trade.
Tasks	Each section is assigned a percentage of exam questions to each task within an MWA.
Sub-tasks	Each industry representative indicates, with a “yes” or “no”, whether or not each sub-task is performed by skilled workers within the occupation in Saskatchewan.

The SOS provides the individual provincial validation results as well as the averages of all responses. The averages for MWA and task weighting guide the Provincial Journeyperson Examination plan for the trade.

The validation of the standard is used to identify common core sub-tasks across Saskatchewan for the occupation. If at least 70% of the responding industry representatives performs a sub-task, it shall be considered common core. Provincial Journeyperson examination questions are limited to the common core sub-tasks identified through this validation process.

Definitions for Validation and Weighting

Yes	sub-task performed by qualified workers in the occupation in the province
No	sub-task not performed by qualified workers in the occupation in the province
Not Common Core (NCC)	sub-task, task or MWA performed less than 70% of responding industry representatives; these will not be tested by the Provincial Journeyperson Examination for the trade
Provincial Average %	average percentage of questions assigned to each MWA and task in provincial Journeyperson examination for the trade

DESCRIPTION OF THE SCAFFOLDER TRADE

"Scaffolder" is this trade's official provincial occupational title approved by industry. This analysis covers tasks performed by a Scaffolder whose occupational title has been identified by the province of Saskatchewan.

Scaffolders lay out, erect, use, maintain, and dismantle scaffolding including access scaffold, shoring, falsework, bleachers, and stages.

Scaffolders are employed by the construction industry. They build safe access equipment and other structures such as scaffolds, ladders, platforms and ramps to be used by other trades.

This standard recognizes similarities in work, or overlapping of other tradespersons such as Carpenters.

TRENDS IN THE SCAFFOLDER TRADE

Technology
The Scaffolding industry is becoming more diversified. Digital technology has found a place within planning, blueprints and tracking on the work site. Cloud and mobile applications have also been integrated into business management processes over the last several years.

Health and Safety
Safe working procedures and conditions, accident prevention, and the preservation of health are of primary importance to industry in Saskatchewan. These responsibilities are shared and require the joint efforts of government, employers and employees. It is imperative that all parties are aware of circumstances and conditions that may lead to injury or harm. Safe learning experiences and work environments can be created by controlling the variables and behaviours that may contribute to accidents or injury.

It is generally recognized that safety-conscious attitudes and work practices contribute to a healthy, safe and accident-free work environment.

It is imperative to be familiar with and apply Occupational Health and Safety (OH&S) Acts, Workplace Hazardous Materials Information System (WHMIS), and Canadian Standards Association (CSA) regulations. It is essential to determine workplace hazards and take measures to protect oneself, co-workers, the public and the environment.

Safety education is an integral part of on-the job training and is reinforced in technical training. As safety is an imperative part of all trades, it is assumed and therefore not included as a qualifier of any activities. However, the technical safety tasks and sub-tasks specific to the trade are included in this analysis.

Tools and Equipment
Tools used in the scaffolding industry have not evolved excessively over time. A Scaffolder's essentials remain to be a tool belt, level, hammer, tape measurer, wrench and the required PPE.

Products and Materials
Scaffolds are made up of basic components such as guardrails, legs, braces, ladders, platforms, baseplates, and mudsills. However, there are many different types of scaffolds that are used for job specific procedures. Each type of scaffold requires specific parts to assemble a working platform correctly and safely. Types of scaffolds include: wood pole, welded frame, system scaffold, tube and clamp as well as manually propelled mobile scaffold. Each of these scaffolding systems will require different components for a proper assembly.

It is important to be familiar with all scaffolding products and material in order to correctly construct a safe working platform.

Environmental, Legislative and Regulatory
Environmental and emission control regulations continue to be important in the industry. There is always a risk for a chemical spill or small environmental disaster during a routine task in the trade. There is an increase in jurisdictional requirements for environmental awareness training and certification to ensure the proper handling and recycling of chemical and other waste materials.

ESSENTIAL SKILLS SUMMARY

Essential skills are needed for work, learning and life. They provide the foundation for learning all other skills and enable people to evolve with their jobs and adapt to workplace change.

Through extensive research, the Government of Canada and other national and international agencies have identified and validated nine essential skills. These skills are used in nearly every occupation and throughout daily life in different ways.

A series of CCDA-endorsed tools have been developed to support apprentices in their training and to be better prepared for a career in the trades. The tools can be used independently or with the assistance of a tradesperson, trainer, employer, teacher or mentor to:

- understand how essential skills are used in the trades;
- learn about individual essential skills strengths and areas for improvement; and
- improve essential skills and increase success in an apprenticeship program.

Tools are available online or for order at: https://www.canada.ca/en/employment-social-development/programs/essential-skills/tools.html.

READING

Scaffolders need to read work orders, invoices and brief notes from co-workers. They also read and interpret technical documents, drawings, specifications, building codes, regulations, bylaws and standards. Scaffolders read notices, bulletins and newsletters to stay up to date on workplace issues as well as trade journals and website articles to keep current on industry trends.

DOCUMENT USE

Scaffolders scan documents, products and signs for symbols and icons to identify workplace hazards. They complete checklists and forms by checking boxes and entering data, such as dates, times and quantities. They locate data in a variety of tables. Scaffolders complete a variety of documents such as logbooks, work orders and building permit applications.

WRITING

Scaffolders write reminders and notes to themselves, customers and co-workers. They write comments in field books, on forms and on schedules about obstacles such as overhead power lines for example. They may also write accident or incident reports depending on the jurisdiction.

ORAL COMMUNICATION

Scaffolders speak with other tradespersons to organize schedules. They talk with co-workers and other tradespeople about timelines, procedures, expectations and other work-related matters. They speak with safety inspectors, manufacturer representatives and customers and they participate in worksite meetings. Scaffolders may also provide detailed instructions to co-workers and apprentices.

NUMERACY

Scaffolders must have a thorough understanding of basic arithmetic, geometry and trigonometry. They often work with both the metric and the imperial systems of measurement. They perform calculations and apply formulas to determine offsets, elevations and grades. Scaffolders also estimate material and time requirements to complete a project.

THINKING

Scaffolders decide on the order of tasks based on priorities and delays. They consult with coworkers and other tradespeople when they encounter problems to exchange ideas and select the best approach. They choose tools, methods and products for projects based on project specifications, building code requirements and the availability of products, time and labour. Scaffolders evaluate the safety of a work site and potential hazards.

DIGITAL TECHNOLOGY

Scaffolders use digital survey equipment, calculators and portable electronic devices to complete numeracy-related tasks such as calculating material requirements. They may use a variety of software such as word processing, spreadsheets, databases, accounting, communication and estimating software. They access information online from suppliers, manufacturers, unions and associations. They may also use the Internet to access training courses and seminars.

WORKING WITH OTHERS

Scaffolders work in pairs some of the time as this promotes efficiency and productivity. They also work with apprentices some of the time to direct, mentor and monitor their work. Scaffolders may also work alone when the task may be performed unassisted. Scaffolders also work in large teams and communicate on a daily basis with other trades, forepersons, suppliers and engineers to complete the job through combined effort and organized co-operation.

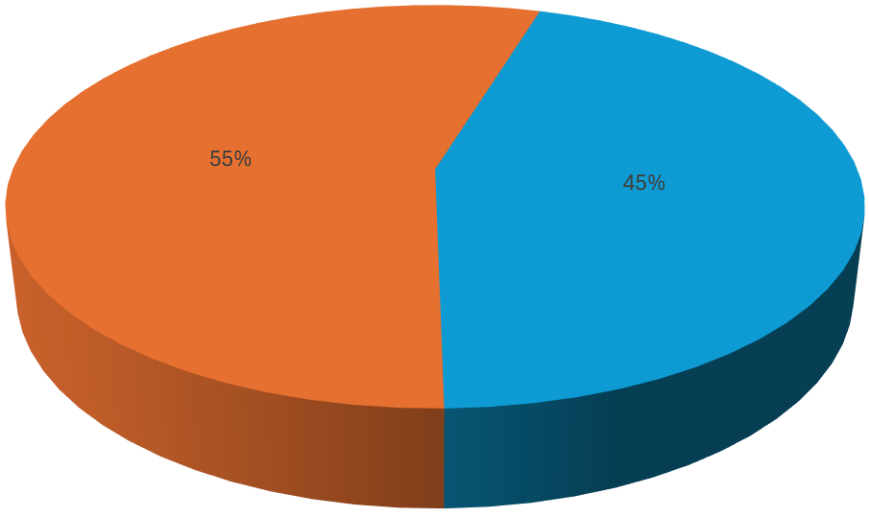
CONTINUOUS LEARNING

There is a requirement for ongoing learning to maintain current knowledge of changing codes, regulations, standards and materials for new scaffolding. It is also very important to apply new skills and methods emerging due to technological and environmental advancements.

INDUSTRY EXPECTED PERFORMANCE

All tasks must be performed according to Saskatchewan's codes and standards. All health and safety standards must be respected and observed. Work is to be performed efficiently and to a high quality without material waste or environmental damage. All requirements of employers, engineers, designers, manufacturers, clients and quality control policies must be met. At a journeyperson level of performance, all tasks must be done with integrity, minimal direction and supervision. As a journeyperson progresses in their career, there is an expectation they continue to upgrade their skills and knowledge to maintain pace with industry and promote continuous learning in their trade through mentoring of apprentices.

PIE CHART
OF PROVINCIAL JOURNEYPERSON EXAMINATION WEIGHTINGS



MWA A	Performs common occupational skills	55%
MWA B	Temporary structures	45%

This pie chart represents a breakdown of the provincial Journeyperson examination. Percentages are based on the collective input from workers from the trade from across Saskatchewan. The Task Matrix on the next pages indicates the breakdown of tasks and sub-tasks within each Major Work Activity and percentage of questions assigned to each Task. The provincial Journeyperson examination for this trade has 100 questions.

SCAFFOLDER TASK MATRIX

A - Performs common occupational skills — 55%

Task A-1 Uses and maintains tools and equipment 21%	A-1.01 Uses and maintains hand, power and pneumatic tools	1.02 Uses and maintains stationary tools	1.03 Uses and maintains layout equipment	A-1.04 Uses and maintains material handling equipment	A-1.05 Uses and maintains rigging equipment
	A-1.06 Uses and maintains hoisting equipment				
Task A-2 Performs safety related activities 5%	A-2.01 Uses personal protective equipment (PPE) and safety equipment	A-2.02 Maintains safe and hygienic work environment			
Task A-3 Uses building materials 6%	A-3.01 Uses fasteners, adhesives and connectors	A-3.02 Uses structural materials	A-3.03 Uses non-structural materials		
Task A-4 Interprets construction documents 13%	A-4.01 Interprets engineered drawings and specifications	A-4.02 Interprets codes, regulations and standards	A-4.03 Estimates materials	A-4.04 Schedules work sequence	

Task A-5 Performs project related skills 10%	A-5.01 Performs site layout	A-5.02 Checks base conditions	A-5.03 Uses communication techniques

B – Temporary Structures 45%

Task B-6 Access structures 18%	B-6.01 Lays out access structures	B-6.02 Assembles access structures	B-6.03 Maintains access structures	B-6.04 Dismantles access structures
Task B-7 Hoarding and shelters 5%	B-7.01 Assembles hoarding and shelters	B-7.02 Maintains hoarding and shelters	B-7.03 Dismantles hoarding and shelters	
Task B-8 Shoring/falsework 5%	B-8.01 Lays out shoring/falsework	B-8.02 Assembles shoring/falsework	B-8.03 Maintains shoring/falsework	B-8.04 Dismantles shoring/falsework
Task B-9 Support structures 5%	B-9.01 Lays out support structures	9.02 Assembles support structures	9.03 Maintains support structures	9.04 Dismantles support structures
Task B-10 Structurally fixed work platforms 5%	10.01 Lays out structurally fixed work platforms	10.02 Assembles structurally fixed work platforms	10.03 Maintains structurally fixed work platforms	10.04 Dismantles miscellaneous equipment

Task B-11 Hung wire and rope or chain work platforms **5%**	**11.01 Lays out hung wire and rope or chain platforms**	**11.02 Assembles hung wire and rope or chain work platforms**	**11.03 Maintains hung wire and rope or chain work platforms**	**11.04 Dismantles miscellaneous equipment**
Task B-12 Specialized safety structures **2%**	**12.01 Lays out specialized safety structures**	**12.02 Assembles specialized safety structures**	**12.03 Maintains specialized safety structures**	**12.04 Dismantles specialized safety structures**

MAJOR WORK ACTIVITY A

Performs common occupational skills

Trends

In the scaffolder trade, the use of technology has increased. More tools and equipment have become mechanized. There is greater emphasis on safety practices on job sites due to more stringent jurisdictional regulations and the competitive nature of bidding and winning project contracts. The availability of environmentally friendly building materials has increased.

Task A-1 Uses and maintains tools and equipment

Range of Variables

specifications, recommendations, procedures, standards
occupational Health and Safety (OH&S)
workplace Hazardous Materials Information System (WHMIS),(labels, training, Safety Data Sheets [SDS])
transportation of Dangerous Goods(TDG)
safety stations, first-aid kits, eyewash stations, fire extinguishing equipment, spill kits, PPE, automated external defibrillator (AED), ventilation equipment
manufacturer's various styles of tools and equipment
RPM ratings, matching rating to power tool RPM, bit types
work surface types
single-use tools
multiple-use tools.

A-1.01 Uses and maintains hand, power and pneumatic tools

	Key Competencies
	Performance Criteria
A-1.01.01	select and manipulate hand tools
A-1.01.02	maintain hand tools
A-1.01.03	identify hazards, worn cords, leaking hoses and dull blades
A-1.01.04	select, set up and operate portable power tools
A-1.01.05	shut down, dismantle and store portable power tools
A-1.01.06	maintain portable power tools

A-1.02 Uses and maintains stationary tools

	Key Competencies
	Performance Criteria
A-1.02.01	identify hazards, cord, hose and/or blade defects
A-1.02.02	select, set up and operate stationary power tools
A-1.02.03	shut down, dismantle and store stationary power tools
A-1.02.04	maintain stationary power tools

A-1.03 Uses and maintains layout equipment

	Key Competencies
	Performance Criteria
A-1.03.01	select, set up and operate layout equipment
A-1.03.02	inspect layout equipment
A-1.03.03	determine instrument accuracy
A-1.03.04	shut down, dismantle and store layout equipment
A-1.03.05	perform routine maintenance and inspection of layout equipment

A-1.04 Uses and maintains material handling equipment

	Key Competencies
	Performance Criteria
A-1.04.01	calculate loads and weights
A-1.04.02	lift and hoist manually and mechanically
A-1.04.03	select material handling equipment
A-1.04.04	inspect material handling equipment
A-1.04.05	identify unsafe material handling equipment
A-1.04.06	connect and operate material handling equipment
A-1.04.07	dismantle and store material handling equipment
A-1.04.08	maintain material handling equipment
A-1.04.09	perform trailer inspection, operation and loading

A-1.05 Uses and maintains rigging equipment

	Key Competencies
	Performance Criteria
A-1.05.01	calculate loads and weights
A-1.05.02	lift and hoist manually and mechanically
A-1.05.03	select rigging equipment
A-1.05.04	inspect rigging equipment
A-1.05.05	identify unsafe rigging equipment
A-1.05.06	connect and operate rigging equipment
A-1.05.07	dismantle and store rigging equipment
A-1.05.08	maintain material rigging equipment

A-1.06 Uses and maintains hoisting equipment

	Key Competencies
	Performance Criteria
A-1.06.01	use electric tools and equipment techniques to prevent cross contamination
A-1.06.02	use electric tools according to manufacturer's specifications
A-1.06.03	select hoisting equipment
A-1.06.04	inspect hoisting equipment
A-1.06.05	identify hoisting equipment
A-1.06.06	connect and operate hoisting equipment
A-1.06.07	dismantle and store hoisting equipment
A-1.06.08	maintain hoisting equipment
A-1.06.09	perform trailer inspection, operation and loading

Task A-2 Performs safety related activities

Range of Variables

OH&S standards
Health Canada/jurisdictional health standards
manufacturer's specifications
solution ratios and strength(s)
types of PPE and safety equipment, hand protection, eye protection, respiratory protection, hearing protection, and their means of operation
protocols for remediating chemical and body fluid contamination and/or exposure

A-2.01 Uses personal protective equipment (PPE) and safety equipment

	Key Competencies
	Performance Criteria
A-2.01.01	Identify workfront hazards
A-2.01.02	select PPE
A-2.01.03	inspect and maintain PPE
A-2.01.04	select, inspect and use fall protection equipment

A-2.02 Maintains safe and hygienic work environment

	Key Competencies
	Performance Criteria
A-2.02.01	use barrier equipment and structures such as barricades, caution tape and bump ropes to bring attention to potential hazardous situations, and to prevent entry of workers and public on site
A-2.02.02	install temporary lighting, environmental protection and hoarding
A-2.02.03	follow safe work procedures including but not limited to: fall protection, confined space, lock-out and tag-out, material handling, tool retention, and access and egress
A-2.02.04	identify and report hazards to prevent incidents
A-2.02.05	apply WHMIS procedures including but not limited to: record keeping of material safety data sheets (SDS), product identification, handling and disposal of hazardous materials
A-2.02.06	comply with OH&S and other jurisdictional regulations
A-2.02.07	perform housekeeping tasks according to site requirements and jurisdictional regulations to avoid injury to self and to others
A-2.02.08	block, cover, fasten and label openings to avoid injury to workers and public
A-2.02.09	write pre_job safety instructions and use hazard assessments to determine the hazards and risks of task being performed

A-2.02.10	use site safety plan posted on the job site to identify location of safety equipment including but not limited to; first aid stations, eye wash stations and muster stations

Task A-3 Uses building materials

Range of Variables

OH&S/CSA standards
manufacturer's specifications
buildings/structures

A-3.01 Use fasteners, adhesives and connectors

	Key Competencies
	Performance Criteria
A-3.01.01	select applicable fasteners, adhesives and connectors
A-3.01.02	store fasteners, adhesives and connectors

A-3.02 Uses structural materials

	Key Competencies
	Performance Criteria
A-3.02.01	assess condition, quality or grade of structural materials
A-3.02.02	select structural materials
A-3.02.03	store structural materials

A-3.03 Uses non-structural materials

	Key Competencies
	Performance Criteria
A-3.03.01	assess condition, quality or grade of non-structural materials
A-3.03.02	select non-structural materials
A-3.03.03	store non-structural materials

Task A-4 Interprets construction documents

Range of Variables

sequencing tasks appropriately
OH&S/CSA standards.

A-4.01 Interprets engineered drawings and specifications

	Key Competencies
	Performance Criteria
A-4.01.01	use interpretation instruments such as protractors, scale rulers and calculators
A-4.01.02	interprets codes, regulations and standards
A-4.01.03	use manufacturers' documentation

A-4.02 Interprets codes, regulations and standards

	Key Competencies
	Performance Criteria
A-4.02.01	apply codes, regulations and standards

A-4.03 Estimates materials

	Key Competencies
	Performance Criteria
A-4.03.01	perform material calculations such as area and volume
A-4.03.02	calculate material load weight

A-4.04 Schedules work sequence

	Key Competencies
	Performance Criteria
A-4.04.01	record sequence of project
A-4.04.02	schedule materials to meet project needs
A-4.04.03	demonstrate communication practices with individuals or in a group

A-4.04.04	estimate time requirements to complete tasks

Task A-5 Performs project related skills

Range of Variables

site conditions
weather
ground stability
number of workers on site

A-5.01 Performs site layout

	Key Competencies
	Performance Criteria
A-5.01.01	operate survey instrument set-up and layout tools including but not limited to: levels and plumb bobs
A-5.01.02	operate instrument layout equipment including but not limited to: builder's levels, laser levels, and transits
A-5.01.03	establish centre line or edge locations
A-5.01.04	establish elevations

A-5.02 Checks base conditions

	Key Competencies
	Performance Criteria
A-5.02.01	determine work area conditions including but not limited to: soil types, water problems and shoring requirements
A-5.02.02	identify grade, level and compacted base
A-5.02.03	identify the possibility of collapse of structures due to excavation, etc.
A-5.02.04	install ground protection including but not limited to: shoring and access restrictions
A-5.02.05	plan for storage and access of materials and equipment

A-5.03 Uses communication techniques

	Key Competencies
	Performance Criteria
A-5.03.01	verbally communicate ideas and methods of construction
A-5.03.02	complete work-related records
A-5.03.03	communicate with authorities including but not limited to: OH&S inspectors, engineers and site superintendents
A-5.03.04	interpret and use international hand signals for equipment
A-5.03.05	interpret and use scaffolding component hand signals

MAJOR WORK ACTIVITY B

Temporary Structures

Trends

Scaffolders access various work locations and use different types of access equipment. Scaffolders build safe access equipment and other structures such as scaffolds, ladders, platforms and ramps to be used by other trades.

Task B-6 Access structures

Range of Variables

safety factors
types of access
ground conditions

B-6.01 Lays out access structures

	Key Competencies
	Performance Criteria
B-6.01.01	sketch drawings
B-6.01.02	calculate component quantities
B-6.01.03	store materials with regard to sequence of installation and site requirements

B-6.02 Assembles access structures

	Key Competencies
	Performance Criteria
B-6.02.01	verify base conditions and other area hazards
B-6.02.02	inspect individual components
B-6.02.03	install bracing according to manufacturer's specifications
B-6.02.04	verify level and plumb
B-6.02.05	install brackets, guys and ties to existing structures or ground as per requirements

B-6.03 Maintains access structures

	Key Competencies
	Performance Criteria
B-6.03.01	check for structural and component faults and defects
B-6.03.02	verify level and plumb
B-6.03.03	determine tight and sound
B-6.03.04	Verify inspection is completed by competent and trained personnel

B-6.04 Dismantles access structures

	Key Competencies
	Performance Criteria
B-6.04.01	inspect components for conformity to manufacturer's specifications
B-6.04.02	store components according to site requirements

Task B-7 Hoarding and shelters

Range of Variables

site conditions
ground type
structure type
hazards

B-7.01 Assembles hoarding and shelters

	Key Competencies
	Performance Criteria
B-7.01.01	verify base conditions
B-7.01.02	inspect individual components
B-7.01.03	verify installation is level and plumb

B-7.02 Maintains hoarding and shelters

	Key Competencies
	Performance Criteria
B-7.02.01	check for component faults and defects
B-7.02.02	verify level and plumb
B-7.02.03	determine tight and sound

B-7.03 Dismantles hoarding and shelters

	Key Competencies
	Performance Criteria
B-7.03.01	inspect components for conformity to manufacturer's specifications
B-7.03.02	store components according to site requirements

Task B-8 Shoring/falsework

Range of Variables

type of structure being supported
required shoring according to engineered specifications for the project
length of time the structure is to be supported

B-8.01 Lays out shoring/falsework

	Key Competencies
	Performance Criteria
B-8.01.01	consult drawings
B-8.01.02	identify components and quantities required
B-8.01.03	store materials with regard to sequence of installation

B-8.02 Assembles shoring/falsework

	Key Competencies
	Performance Criteria
B-8.02.01	verify base conditions
B-8.02.02	inspect individual components
B-8.02.03	fabricate wooden wedges
B-8.02.04	install bracing to manufacturer's specifications
B-8.02.05	verify level and plumb
B-8.02.06	install brackets, guys and ties to existing structures or ground

B-8.03 Maintains shoring/falsework

	Key Competencies
	Performance Criteria
B-8.03.01	check for component faults and defects
B-8.03.02	verify level and plumb
B-8.03.03	determine tight and sound
B-8.03.04	verify inspection is completed by competent and trained personnel

B-8.04 Dismantles shoring/falsework

	Key Competencies
	Performance Criteria
B-8.04.01	inspect components for conformity to manufacturer's specifications
B-8.04.02	store components according to site requirements

Task B-9 Support structures

Range of Variables

amount of material
engineered specifications
site conditions

B-9.01 Lays out support structures

	Key Competencies
	Performance Criteria
B-9.01.01	sketch drawings
B-9.01.02	identify required components and calculate quantities
B-9.01.03	store materials with regard to sequence of installation

B-9.02 Assembles support structures

	Key Competencies
	Performance Criteria
B-9.02.01	verify base conditions
B-9.02.02	inspect individual components
B-9.02.03	install bracing according to manufacturer's specifications
B-9.02.04	verify level and plumb
B-9.02.05	install brackets, guys and ties to manufacturer's specifications

B-9.03 Maintains support structures

	Key Competencies
	Performance Criteria
B-9.03.01	check for structural and component faults and defects
B-9.03.02	verify level and plumb
B-9.03.03	determine tight and sound
B-9.03.04	verify inspection is completed by competent and trained personnel

B-9.04 Dismantles support structures

	Key Competencies
	Performance Criteria
B-9.04.01	inspect components for conformity to manufacturer's specifications
B-9.04.02	store components according to site requirements

Task B-10 Structurally fixed work platforms

Range of Variables

integrity of roof or wall in which the platform is to be attached
type of roof or wall in which the platform is to be attached
fixed obstacles on the attachment surface

B-10.01 Lays out structurally fixed work platforms

	Key Competencies
	Performance Criteria
B-10.01.01	consult drawings
B-10.01.02	identify required components and calculate their quantities
B-10.01.03	store materials with regard to sequence of installation

B-10.02 Assembles structurally fixed work platforms

	Key Competencies
	Performance Criteria
B-10.02.01	prepare supporting roof and wall surfaces
B-10.02.02	verify level and plumb
B-10.02.03	install bracing, brackets, guys and ties to existing structures or ground

B-10.03 Maintains structurally fixed work platforms

	Key Competencies
	Performance Criteria
C-10.03.01	inspect lines and rigging
C-10.03.02	check for component faults and defects
C-10.03.03	verify level, plumb and angles
C-10.03.04	check components are tight and structure is sound
C-10.03.05	verify inspection is completed by competent and trained personnel
C-10.03.06	determine tight and sound

B-10.04 Dismantles miscellaneous equipment

	Key Competencies
	Performance Criteria
C-10.04.01	inspect components for conformity to manufacturer's specifications
C-10.04.02	store components according to site requirements

Task B-11 Hung wire and rope or chain work platforms

Range of Variables

anchor points
condition and strength of wire, rope or chain
wind factor

B-11.01 Lays out hung wire and rope or chain platforms

	Key Competencies
	Performance Criteria
B-11.01.01	consult drawings
B-11.01.02	identify required components and calculate their quantities
B-11.01.03	store materials with regard to sequence of installation

B-11.02 Assembles hung wire and rope or chain work platforms

	Key Competencies
	Performance Criteria
B-11.02.01	prepare supporting roof and wall surfaces
B-11.02.02	verify level and plumb
B-11.02.03	install bracing, brackets, guys and ties to existing structures or ground

B-11.03 Maintains hung wire and rope or chain work platforms

	Key Competencies
	Performance Criteria
B-11.03.01	inspect lines and rigging
B-11.03.02	check for component faults and defects
B-11.03.03	verify level, plumb and angles
B-11.03.04	determine that components are tight and the structure is sound
B-11.03.05	verify inspection is completed by competent and trained personnel
B-11.03.06	determine tight and sound

B-11.04 Dismantles miscellaneous equipment

	Key Competencies
	Performance Criteria
B-11.04.01	inspect components for conformity to manufacturer's specifications
B-11.04.02	store components according to site requirements

Task B-12 Specialized safety structures

Range of Variables

site specific safety requirements

B-12.01 Lays out specialized safety structures

	Key Competencies
	Performance Criteria
B-12.01.01	sketch drawings
B-12.01.02	calculate component quantities
B-12.01.03	store materials with regard to sequence of installation

B-12.02 Assembles specialized safety structures

	Key Competencies
	Performance Criteria
B-12.02.01	prepare supporting roof and wall surfaces
B-12.02.02	verify angle requirement and coverage area
B-12.02.03	install bracing according to manufacturer's specifications
B-12.02.04	verify level and plumb
B-12.02.05	install brackets, guys and ties to existing structures or ground as per specifications

B-12.03 Maintains specialized safety structures

	Key Competencies
	Performance Criteria
B-12.03.01	inspect lines and rigging
B-12.03.02	check for structural and component faults and defects
B-12.03.03	verify level, plumb and angles
B-12.03.04	determine tight and sound
B-12.03.05	verify inspection is completed by competent and trained personnel

B-12.04 Dismantles specialized safety structures

	Key Competencies
	Performance Criteria
B-12.04.01	inspect components for conformity to manufacturer's specifications
B-12.04.02	store components according to site requirements

APPENDIX A
ACRONYMS

CSA	Canadian Standards Association
ICI	Institutional, Commercial and Industrial
SDS	Safety Data Sheet
NBC	National Building Code
OH&S	Occupational Health and Safety
PPE	personal protective equipment
UDL	Uniform Distributed Load
VOC	Volatile Organic Compound
WLL	Working Load Limit
WHMIS	Workplace Hazardous Materials Information System

APPENDIX B
TOOLS AND EQUIPMENT

Personal Protective Equipment (PPE) and Safety Equipment

- debris netting
- dust mask
- fall arrest anchor points
- fall protection equipment
- first aid kits
- full body harness
- gloves
- hard hat
- hearing protection
- knee pads
- lanyard
- lock out box/locks
- protection nets
- personal gas detector
- reflective vest
- respirators
- roof jack
- rope grab
- safety boots
- safety fans
- safety glasses and shields
- safety lifeline
- safety nets
- self-retractable lanyard
- solar protection
- tool tethers

Hand Tools

- adjustable wrench
- bars (pry, wrecking, aligning)
- broom
- scaffolder's apron
- caulking gun
- chalk line
- clamps
- cold chisel
- dry line
- framing square
- hammers (sledge, smooth faced, straight,
- hand level (24", 48", 6-ft., 8-ft., torpedo, line)
- hand saws
- knives (utility)
- measuring tape (various)
- multi-driver screwdriver
- nail puller
- pencil/marking instrument
- pliers and side cutters
- plumb bob
- rasps
- rollers
- scrapers (cabinet, floor, form)
- screwdrivers
- scaffolder wrench
- shovels
- sliding t-bevel
- spud wrench
- staplers (hammer, hand, electric)
- string lines
- tarps
- tie wire
- torque wrench
- tube cutter
- wheelbarrow
- wood chisels

Portable Power Tools and Accessories

- calculator
- circular saw
- cordless drill
- coring drill and bits
- cut-off saw (metal)
- cut-out tools
- concrete bits
- construction heaters
- electric drill and bits
- extension cords
- fan-forced heater
- hammer drill
- generator
- grinders
- ground fault circuit interrupter
- hydraulic jacks
- jigsaw
- mini-grinder
- mitre saw
- powder-actuated tools
- portable bandsaw
- reciprocating saw
- router and bits
- staplers
- tiger torch
- wet/dry vacuum
- wood boring bits
- wood spade bit set

Stationary Power Tools

- bandsaw
- chopsaw
- drill press
- dust collection equipment
- grinder
- table saw

Pneumatic Tools and Equipment

- air compressor
- drills
- fittings
- gauges
- hoses
- nailers
- staplers

Rigging, Hoisting and Access Equipment

- aerial work platforms
- blocks and tackles
- bridge crane
- cables
- cable clips/clamps
- chokers
- come-alongs
- eyebolts
- forklifts (variable reach forklifts)
- guardrails
- grip hoist (tirfor)
- ladders
- ladder hoist
- ladder jacks
- lifting bags
- lifting beam
- mobile crane
- pinch bar
- pulleys
- scaffolding
- ropes
- shackles
- skid ramps
- skid steers
- slings
- spreader bar
- suspension rope
- synthetic lifting straps
- tag lines
- turnbuckles
- wire rope

Layout Instruments

- builder's levels
- chalk lines
- combination squares
- dividers
- drawing instruments
- dry lines
- framing squares
- jigs
- laser levels
- laser measuring systems
- measuring tapes
- scale rulers
- scribers
- plumb bobs
- scribing compasses
- sliding T-bevels
- speed squares
- templates
- theodolites
- transits
- try squares

APPENDIX C
GLOSSARY

access	way or means of entering an area
access gate	type of barrier used to provide easy access to or egress from a platform
access frame	ladder or stairway used to enter or exit a scaffold
acclimatization	to make or become familiar to new climates or new conditions
active fall protection system	systems and methods that require active involvement from the worker to ensure safety against fall hazards
actual capacity	total load a component can bear without failing
actual load	weight of the scaffold equipment, tools, material, and employees; It is used in contributory leg load calculations
adjustable caster adapter	component attached to a caster that can be adjusted for height and levelling purposes
allowable load	maximum load a scaffold component can safely carry; according to the manufacturer's load of a single component
alphabet of lines	system of symbols used to identify and explain the lines used in a print
anchor bolt tie-in	positive connection that provides secure tie-in points to a structure with no openings through which tie-in tubes can pass
anchorage point	position on the structure to which the fall arrest device or lanyard securely attaches
architect's scale	three-sided ruler designed for measuring lengths in feet and inches on a scale drawing
architectural prints	drawings that describe the size and shape of a structure, such as a scaffold; shows different views and may contain detail drawings, section drawings, schedules and specifications
arresting force	amount of impact applied to the human body at the end of a fall, based on the weight of the person and the fall distance
attachable ladder	type of ladder made up of side rails and run sections that connect together and interlock at the ends
banding	process of attaching a piece of metal strapping around the end of a plank to control a split
bare planked/ bare decked levels	platform levels that are planked or decked but not used simultaneously as work levels
barricade	objects positioned around the base of a scaffold to prevent access to the areas below and adjacent to the falling object hazard area
barrier	temporary structure that divides or separates
baseplate	device used to distribute the leg load to the foundation

batter boards	boards at each corner (at right angles) of an excavation and at grid lines, used to indicate the location and alignment of footing and foundation walls and columns
bay	framed section or single level of scaffold
beam	a main horizontal structural member constructed of wood, steel or concrete used to support secondary vertical loads
beam clamp	type of clamp specifically designed to be used with an I-beam
bearer or transom	horizontal transverse scaffold members that support the scaffold platform and joins scaffold uprights, posts, poles, and similar members
body	core or main portion of a clamp to which all other parts are attached
body harness	set of straps secured around a worker to distribute fall arrest forces evenly and are fastened over the thighs, shoulders, chest and pelvis
border line	heavy unbroken line that outlines a drawing to indicate the drawing is complete
bowline knot	universal, versatile, and easily tied and untied method of fastening rope; never jams or slips if properly tied
box tie	positive connection used when the scaffold is close to a column
bracing or brace	stabilizing component placed across vertical and horizontal members of the scaffold and fastened to them to provide strength and rigidity to the entire assembly
buttress	braces or towers placed outside the main structure of a scaffold to extend its base and provide extra stability
buttress raker brace	structural diagonal scaffold member that supports the cantilevered platforms, bridges and putlogs from below the platform
canopy	roof-like structure, or catch platform mounted over employees and strong enough to withstand the impact forces of potential falling objects
cantilever	structure used to extend a work platform beyond the basic scaffold framework and beyond the normal vertical supports
cantilever beam	horizontal support that extends a work platform out beyond the basic scaffold framework and beyond the normal vertical supports
capacity	regulation standard or standard for ultimate load a scaffold can hold without failure according to the manufacturer
carrick bend knot	more secure version of the sheet bend knot, preferable for joining larger diameter ropes because it does not jam and always draws tight under load
caster	swiveling rubber or steel wheel secured at the bottom of a vertical scaffold post to make it mobile
catch platform	platform installed above the employees to prevent impact from falling objects
centreline	real or imaginary line passing through an opening or the centre of an object
chain line	method in which two or more erectors form a human chain to pass scaffold components from one to another
check clamp	another name for a backup clamp or safety clamp that ensures that the clamp above will not slip down if it works loose

checks and splits	small nicks or separations across the plank material that can increase deflection
cladding	the covering of one material with another
clamp or coupler	structurally designed fastening device used to lock or connect at right angles or diagonally
competent person	a person who is qualified because of knowledge, training and experience to organize the work and its performance; is familiar with this act and the regulations that apply to the work and has knowledge of any potential or actual danger to health or safety in the workplace.
compression	pushing forces on a component
compression raker	structural brace used to support a cantilevered platform from below
confined space	area that has limited or restricted means of access and egress, is not designed for continuous employee occupancy and is large enough and configured so an employee can enter it and perform assigned work
connector or joiner	structurally designed fastening device used to lock or connect scaffold tubes together end to end
contributory area	portion of the platform that is supported by an individual scaffold leg/standard
controlled access zone (CAZ)	designated and clearly marked work area where certain types of work may take place without the use of a conventional fall protection system
clove hitch	quick, simple method of fastening a rope around a post or tube that can be tied in position or have the rope slipped over the end
column	a vertical structural member that supports the weight of other members
compression spur	structural, diagonal scaffold members, always under compression, that support cantilevered platforms, bridges, and putlogs from below
contributory leg load	The combination of the live load and the dead load supported on a scaffold
core	any material, generally an engineered wood product, used between face veneers to provide a stable and strong surface to adhere the veneers
cornice hook	shaped suspension device that hooks over a decorative parapet to support a suspended scaffold
counterweights	series of weights attached to the back of outrigger/thrustout beams to counteract the forces of a suspended load; also called counterbalance weights
counterweight	weight used to counterbalance an eccentric load
coupling or locking	fasteners that hold the ends of vertical posts together
coupling pin	device that connects frame legs to each other between tiers
crane	piece of machinery used in construction for hoisting, moving and placing materials and other equipment
crib	support structure at ground level for staging plank materials and prevent their exposure to excess water/moisture
critical tie	positive connection that cannot be moved without compromising the stability or strength of the scaffold or another member
crosby clip	a galvanized fitting used to securely fasten wire rope or guy strand

cross brace	two diagonal bars or tubes joined at their centres to form an X and used specifically in scaffold erection to stabilize the uprights/frames or to hold a scaffold member in a fixed position with respect to another scaffold member
cross planking	placing planks across the width of a bay or from one bay to another across the runners/ledge
cutting plane line	line that defines the location of an imaginary cut made on an object to show the internal view
datum elevation/ datum point	secondary elevation mark based on sea level and established by local agencies as a control point for local elevations
davit	engineered hoist arm attached to a structure used to support a suspended scaffold
dead load	calculated weight of the scaffold structure itself and component parts such as framework, hoists, stairs, ladders
debris net	horizontal or diagonal netting, or screen, attached to the scaffold below the work platform to capture falling objects
deceleration device	mechanism that serves to dissipate a substantial amount of energy during a fall arrest or to limit the energy imposed on the user during a fall arrest
deck	aluminum frame with a metal or wood finish surface that is 12”-32” wide
deflection	amount of curve or sag in a plank caused by the load
demarcation	object that indicates a boundary or separation
demountable wall	a wall or partition system designed to be removed from a mounting, setting, or place of support
detachable outrigger frame	support structure added to existing units to provide a wider base
detail drawing	additional information provided about another drawing
dimension line	lightweight line drawn outside a structure, object, or detail to show the distance between two points
drum	a type of hoist used on a suspended scaffold
dunnage	wood strips or crating between materials that provides air circulation and lifting space; waste material
duty rating	manufacturer’s recommended maximum allowable load for any scaffold component; method of classifying scaffolds according to their designed load-carrying capabilities
eccentric load	point at which a scaffold load is located outside the footprint of the scaffold such as a cantilevered deck
egress	exit point for a work location
elevation view	drawing that shows a structure from the eye level of the reader
end-to-end connectors	Clamp used to extend the length of tubes by attaching additional tubes at the end
engineered drawings	a drawing prepared by an engineer, for an engineering purpose. It is the graphic representation of physical objects and their relationship. It is prepared, based on certain basic principles, symbolic representations, standard conventions and notations.

equivalent plank	non-graded wood planks that a competent/qualified person visually inspects and load tests to determine whether material is of scaffold grade
erector	person who builds a scaffold
ergonomic lifting	technique for lifting materials that is designed to minimize physical effort and discomfort and maximize efficiency
extended bearer/transom	component used to support the vertical ladder tube and extends past the posts/standards approximately 18”-24”
extension line	lightweight line that extends from the edge or end of a part; indicates the point that the dimension line refers to
eyebolt	threaded fastener with a loop at the non-threaded end
face break	separation of wood fibers on the wider face of a plank as a result of overloading
factor of safety (FoS) or safety factor	ratio of the load a lifting system can carry under any circumstances to the maximum load it is likely to carry during ordinary use
fall window	distance between the anchorage point and the stopping point of an arrested fall
falsework	a temporary support system which uses steel, timber or shoring posts and follows engineered specifications to support a permanent structure during construction and is removed once the permanent structure becomes self-supporting
farm wagon	unit with pneumatic tires to form the base of a mobile scaffold
figure 8 knot	method of securing the end of a rope to prevent its strands from unwinding or to prevent the rope from going through a block; it can be tied simply and quickly; it does not jam or damage the rope fibers; larger and stronger knot than an overhand knot
footing	supporting element at the base or bottom of a foundation wall, pier or column used to distribute weight
forklift	powered industrial truck used to lift and transport materials
foundation load	total weight of the live load and the dead load that is transferred to the foundation through the baseplates and mudsills
frame clamp	equipment for fastening side-by-side scaffold legs together
frame	main component that provides the vertical legs and main horizontal bearers for the platform of a welded metal scaffold
frame bracing	built-in stabilizing component that prevents welded frame scaffolds from twisting or collapsing
frame-locking devices	used either to attach cross braces or to secure banana clips; three common types are spring locks, Texas quick locks, and threaded studs with wing nuts
free fall	state in which the only force acting upon the body is gravity
friction tie-in	stabilizing device that relies on friction for its holding power
gin wheel or well wheel	metal pulley assembly with a rope used to hoist material up onto a scaffold platform or to lower them from the platform to the ground
gooser	tube with a locking mechanism located on both ends used for guardrails or other horizontal applications

ground fault circuit interrupter (GFCI)	device that detects unintended electrical leaks to prevent, or shock or ground fault
guardrail gate	access unit that is pre-assembled with guardrails and posts ready to mount into the scaffold frames using frame coupler pins
guardrail post	vertical shaft with attachment points designed to receive guardrails
guyline	supporting cable used in the absence of tie-ins and secured at one end to the scaffold and anchored at the other end to the ground or a permanently fixed structure to help maintain the scaffold's strength and rigidity
half hitch	easy overhand knot used for hitching a rope to a pole, especially good for a right-angle pull; the beginning of many other knots
handballing or chaining	using the crew at various platform levels to pass materials for upper lifts or a scaffold from one person to the next
handline lifting	involves tying a rope line to the load and lifting it hand-over-hand to the working platform
harness	straps secured around an employee to distribute fall arrest forces at least over the thighs, shoulders, chest, and pelvis and that has the means to attached to other components of a PFAS
hidden line	medium weight dashed line that indicates anything hidden under some other part of an object or structure
hitch	method of fastening a rope to an object; decreases rope strength approximately 25%
hoarding	tarps or other materials that cover a scaffold; enclosing a scaffold to control or contain contaminants or environmental factors
hoist	manual or power-operated mechanical device to raise or lower a suspended scaffold
hoist arm	member mounted directly to the scaffold framework for use with the gin wheel to raise and lower equipment and materials
horizontal diagonal clamp	equipment allows for changing the direction of a brace point or adding a point for securing
horizontal diagonal bracing	diagonal support placed across the horizontal plane at specified intervals and at tie-in points to increase strength and rigidity throughout the entire scaffold
horizontal lifeline	secured cable rigged between two fixed anchorage points on the same level to serve as a mobile fixture line for attaching a lanyard, lifeline, or retracting lifeline
indent	depression in a plank as a result of impact from falling tools on building materials
independent wood pole scaffold or double-pole scaffold	platform resting on bearers/transoms supported by runners/ribbons and a double row of poles unsupported by any separate structure
integral prefabricated access frame	scaffold frame specifically designed and constructed for use as ladder rungs
intended load	total weight on a scaffold component at any one time, including the live load, the dead load, and any other loads or forces that the assembly is engineered to carry

isometric view (ISO)	a three-dimensional format showing a single view of an object usually from above and at a 30-degree angle
jig	tube and clamp device made at the jobsite and used to quickly assemble multiple components
job analysis	systematic examination and evaluation of the job being performed
joist	one of a series of horizontal members used to support a floor, ceiling or roof
jurisdictional requirement	requirements such as building codes and regulations, including those related to occupational health and safety, legislated through the federal, provincial/territorial or municipal levels of government
kinetic lifting	technique for lifting materials with minimum effort by using body weight and momentum
knee brace	intermediate horizontal tube that runs from a runner node point on the scaffold out to the raker
knee-out brackets	reinforced side brackets designed for building around overhangs or protruding objects, extending the height of the scaffold, and supporting materials and additional tiers of scaffolding
knot	method of fastening a rope to an object; decreases rope strength approximately 50%
ladder	frame made with two side rails joined at regularly spaced intervals by crosspieces, or rungs, on which an erector may stand to perform work or use as steps to climb up and down
lanyard	harness component between the D-ring on a harness and the anchorage point
large-area scaffolds	pole scaffold, tube and clamp scaffold, systems scaffold, or fabricated frame scaffold erected over the entire work area
leader line	thin line that points out a specific feature of an object, such as a dimension, note or specification
ledger brace	vertical/diagonal support on the narrow end of the scaffold that runs from the bottom of the outside post to the top of the inside post in a lift
leg load	total load applied or transmitted to a specific leg from surrounding scaffold platforms, equipment, or any other loading conditions
legend	list of the symbols used in prints, along with an explanation of each symbol
lifeline	rope or steel cable attached to an anchorage point
lift	one tier or level of a system scaffold
lip tie-in	positive connection that works very well with roof parapets or I-beams
live load	all moving or changing load factors that might be placed on a scaffold structure, such as people, tools, materials
load	amount of weight or force placed upon the foundation, platform or individual scaffold components
load bearing wall	a wall supporting primary vertical loads
load chart	list supplied by a putlog manufacturer showing the maximum uniform and center loads an installed putlog can safely carry
load placement	locating equipment and materials as close as possible to the assembly area

locking devices	used to attach couplers and frames as well as to fasten screw jacks, bases, casters, and frames together; include such devices are gravity pins, pigtails pins, frame rivet pins, thumb screws, and banana clips, also called boomerangs
long break line	fine line with a zigzag break inserted at interval; indicates that the full length of some part has not been drawn or that components have been left out of the drawing
longitudinal diagonal bracing	face or sway bracing that fix in position parallel uprights or tiers of uprights in relation to one another along the face or length dimension
maintenance	activities required for the proper functioning of power tools such as inspecting, oiling, tensioning of chains or belts, adjusting, dusting air filters, etc.
manually propelled mobile scaffold or rolling tower	welded frame scaffold with a rolling base that sits on locking casters
manufactured welded frame	support structure in a variety of sizes and styles to meet the requirements of different crafts and trades
mason frame	commonly used support structure that erectors can climb on
material estimation sheet	document used to record the type and amount of materials needed to erect scaffolding
maximum intended or total scaffold load	total load of all people, equipment, tools, materials, transmitted loads, and other loads reasonably anticipated to be applied to a scaffold or its components at any one time, as determined by the scaffold manufacturer
maximum required interval	vertical distance that must be maintained between tie-ins on scaffold
metal platform	category of platforms that uses aluminum or steel as the primary structural member
mobile scaffold	temporary elevated work platform built on a base supported by casters' also known as a rolling scaffold
mudsill	piece of material, usually wood, laid on the ground directly under a scaffold's vertical posts and baseplates to distribute load to the foundation surface
multi-lift	two or more scaffold bays erected vertically
needles	tubes extending out beyond the regular framework to provide the primary support for a cantilever
no. 9 wire tie	common tie method in which the twisted wire draws the fastened part tightly to a secured anchor point
node point	strongest point on a vertical post; the intersection where bearers, runners, and braces connect to the vertical posts
notes	written comments or information about a portion of a drawing
O.C.	on centre
O.D.	outside diameter
object line	heavy unbroken line that defines the shape and size of an object
open-end frame or walk thru frame	support structure similar to the walk-thru frame for access but with no built-in ladder

orthographic projection	Multi-view drawing used to represent three-dimensional drawings accurately
orthostatic intolerance of orthostatic incompetence	gravity pulling blood into the lower legs where it accumulates but not pumping blood back to the heart and that creates loss of feeling in the extremities
outrigger	structural component of a supported scaffold used to increase the base width of a scaffold to provide support and increased stability
outrigger beam or buttress	structural member of a supported scaffold that increases the base width of a scaffold to provide support and increased stability for the scaffold
outrigger frame	support structure that maximizes scaffold height because of its wider base for stability; may be used on manually propelled mobile scaffolds
outrigger or buttress	structural member of a supported scaffold that increases the base width of a scaffold to provide support and increased stability for the scaffold
outrigger or thrustout beam	structural member of a suspension scaffold or outrigger scaffold that extends the scaffold point of attachment to a point out and away from the structure or building to add support for the scaffold
parapet clamp	device clamped to a structural ledge to support a suspended scaffold
passive fall protection system	procedure or equipment that does not rely on the user to take any special action to be protected from a fall
peening or corrosion or flattening	loss of more than one-third of the original diameter of the outside wires from fatigue and stress corrosion.
pendulum effect	swing arc resulting from the user moving too far away horizontally from the anchorage point
personal fall arrest system (PFAS)	procedure or equipment that stops the user in a fall and consists of an anchorage point, connectors, body harness, lanyard, deceleration device, a lifeline, or a suitable combination of these.
personal protective equipment (PPE)	gear worn or used to minimized or prevent injury from exposure to unsanitary conditions, hazardous work, or working conditions
pier	a foundation which distributes the weight of a column
plan brace	horizontal component placed at a diagonal between opposing scaffold legs/ standards to stabilize and square a frame; also known as a horizontal diagonal brace or gooser brace
plan view	drawing that shows a horizontal cross-sectional view of a scaffold looking down; often called a bird's-eye view
plank	family of platforms up to 12" wide and usually designed to be supported at lengths of up to 10'- 0"
painter-decorator scaffold	common type of independent wood pole scaffold often used for painting and similar jobs
platform weight/load	weight of the platform itself; pounds per square foot
plywood	building material manufactured by laminating a core material between two thin sheets of veneer
point load	point or place on the scaffold platform where the weight of the load is most concentrated and deflection is the greatest

portable ladder	type of ladder that can be moved from location to location as needed
positive tie	stabilizing device that is bolted, welded, nailed or clamped to a solid structure and does not rely on friction for anchoring
post or leg or standard	vertical member of the scaffold that supports the load and provides a firm point for lateral attachment
powder–actuated tool	device that drives fasteners by means of an explosive charge
prefabricated rack	support unit built with tubes and clamps and used as a layout framework or measuring device for making up large numbers of identically sized bearers with their clamps
preloading	pressure placed on the connecting devices where horizontal lifelines are secured
print	working drawing that lays out a detailed plan about how a building should be constructed
pulley	wheel with a grooved rim that carries a rope or chain and turns in a frame; used for raising or lowering materials and equipment from a scaffold platform
pulley system	lifting device involving a wheel that turns in a frame or a block used to transmit or change the direction of force
pullout force	resistance of the anchor point to side pressure which keeps the scaffold plumb
puncheon	post/standard or other vertical component that provides support but does not contact the supporting surface of the scaffold
putlogs	also known as bridges, trusses, or trestles; are specially braced scaffold components used to support a scaffold or work platform and bridge to areas where scaffolding cannot be used
putlog hanger	vertical steel bracket seated over the bearer/transom of a welded frame and used to support a putlog
putlog spreader	long metal component with curved or u-shaped ends and two coupling pins used to support scaffold frames above one or more putlogs and align them with other scaffold frames
qualified person	means, in respect of a specified duty, a person who, because of their knowledge, training and experience, is qualified to perform that duty safely and properly
raker braces	structural braces that provide added support to loadbearing scaffold members
racking	resulting condition after a scaffold (usually a mobile scaffold) is forced out of its square or rectangular footprint, which reduces its minimum base dimension causing it to lose stability
ramp	slope or inclined plane used for joining two different levels
rafter	one of a series of structural members of a roof designed to support roof loads
raker tubes	solid support tubes installed with right-angle clamps
rated capacity	manufacturer's specified maximum load to be applied to a scaffold or scaffold component
rated load	manufacturer's recommended design load
reef knot	often used to join two ropes of the same diameter

reshoring	means of temporarily supporting and stabilizing a weak or compromised structure that might otherwise fail
rest platform	area that allows a person climbing a ladder to rest or catch his or her breath before continuing
retractable or self-retractable lifeline	portable, self-contained device that attaches to an anchorage point above the work area, acting like an automatic tensioned lanyard and playing out of the device as distance increases and retracting as distance decreases
reveal tie	friction connection using a right-angle clamp to attach a tie tube to one end of a tube extended across the inside of an opening being held in place by the friction of a baseplate and a screw jack, or to attach to the other end of the extended tube out at the scaffold
revision cloud	scalloped, solid line drawn around revised items in a drawing
right regular lay	wire rope having the twist of the wire in the strand going the opposite direction to the twist of the strand
right-angle bolt or wedge clamp	two semicircular receptacles and two straps used to construct scaffold bays consisting primarily of members placed at right angles
right-angle clamp	fastener designed to join tubes at a 90-degree angle when secured with a bolt and nut, or with a wedge
rip-stitch lanyard	40” section of nylon web material sewn together that tears open on impact
rise	vertical measurement on stairs, ramps and roofs
riser	upright portion on the front of a step on a stairway or stair-type ladder
rodding	process of inserting a heat-treated, twist steel pin to control a split in a plank
roll out	snap hook gate unlatching from the harness or anchor when part of the slack lanyard, or lifeline hits the gate during a fall
rolling tower	multi-lift mobile scaffold
rope	strong cord made of strands of fibers and wire that are twisted or braided together
rope clip	bolt-on clip used to form an eye in wire rope, or to attach wire rope to equipment
rope grab or slider	attachment device that connects the lanyard to the lifeline to hold the rope, especially during a fall
rosette	cup or ring-shaped attachment point on a system scaffold leg/standard
run	horizontal measurement on stairs, ramps and roofs
runner or ledger	lengthwise horizontal spacing or bracing member which connects and spaces the legs and supports the bearers on a tube and clamp scaffold
safe working platform	elevated surface that conforms to regulations and provides temporary access for working at heights
safety factor	margin required by safety regulations to prevent unforeseen scaffold overloads or collapse or failure of a component
saw kerf	saw cut through a member that continues into a scaffold plank
sawn wood planks/ solid sawn planks	pieces of lumber, typically 2x10 and made from southern yellow pine or Douglas fir

scaffold	temporary elevated or suspended work platform for workers, tools and materials
scaffold erecting crew	group of workers who erect, modify and dismantle the scaffold
scaffold erector	worker who erects, modifies and dismantles a scaffold
scaffold grade	approval rating assigned to wood planks that passes visual inspection and load testing
scaffold hitch	knot used for suspending a scaffold plank which prevents tilting and allows the plank to remain in a horizontal position
scaffold tag	sign attached to a piece of equipment or part of a structure to indicate the condition of the scaffold
scale drawing	type of drawing made to a size or scale that is different from the actual size of the object being drawn
section drawing	type of drawing that shows a cut through a section of the scaffold at a determined location
section lines	group of thin, evenly spaced lines that indicate interior cut surfaces in a section drawing; also referred to as crosshatching lines
screening or mesh	vertical barrier used for fall protection or placed overhead to protect users from falling objects
screw jack	device used with baseplates/casters of scaffold legs to adjust and level the scaffold
secondary brake or locking pawl	safety device that engages automatically when a host experiences an instantaneous change in momentum or an accelerated, over-speed episode
shackle or clevis	U-shaped fitting that makes connections between cables and support devices
shake	lengthwise separation of wood between the rings or through the pith
sheet bend or carrick bend	strong, secure knot that can be used to join two ropes of different construction
shock-absorbing lanyard	manufactured, short, flexible strap that connects a user's body harness either to an anchorage point, or to a grabbing device on a lifeline and rips apart when activated during a fall to absorb some of the impact
shock load	sudden and intense force placed on scaffold components during a fall
shoring	temporary support of structures used during construction in order to provide stability
shoring post	telescopic adjustable post used to hold or shore an object in place
short break line	wavy, hand-drawn line that shows the internal features of an object; also referred to as a freehand break line
side access	attachable ladder feature that allows users to step off the ladder sideways to reach the platform
side bracket	designed for personnel use only, this component extends the work deck out beyond the basic scaffold framework
sidewalk canopy frame	support structure that allows the public to walk under a scaffold
sign	public display of a written message

site layout	location of primary building components on the building site via construction drawing interpretation in relation to property lines
single-pole scaffold	wooden scaffolding supported on its interior side by an existing structure or wall
snap hook connector	part of a lanyard; is comprised of a hook-shaped member with a spring-locking, double action keeper that opens to receive a connecting component and automatically closes when released
soil compaction test	scientific process that determines the density of soil
specifications	written instructions that detail every phase of a construction job from start to finish; also known as specs
spigot	connecting device consisting of a coupling pin inserted into a sleeve with a half bolt or wedge clamp at the end
split	type of damage to a plank; results in a separation that goes completely through the plank
square	having two sides that are at right angels (90 degrees to each other)
stage	family of platforms with widths ranging from 12” to 32” and lengths greater than 10’-0”
staging	the practice of locating equipment and materials as close as possible to the assembly area
stair tower	vertical assembly of multiple flights of stairs
stair units	often used in place of ladder assemblies to access the work platforms of system scaffolds
stair weight	calculated weight of all scaffold components per lift
stall load	force that stops the prime-mover of a power-operated hoist or the point at which the power to the prime-mover is automatically disconnected
stand-off	tie-in used between a scaffold and the structure to provide the scaffold with additional stability
starter collar	a short post with a set of system rings, cups, or rosettes attached
sticker	structure for holding planks while they dry out
stirrups or suspension brackets	main support brackets constructed of aluminum or steel used at each end of the stage and to which lifting device are normally attached
story pole	length of narrow board used as a layout tool for any kind of repeated measurement
stringer	sloping member that provides the main support for treads and risers on stairs
structural prints	drawings that show the structural features of an object, such as a building or scaffold; contains information on the placement of scaffold components, such as platforms, tie-ins, bracing, legs/standards and runners/ledgers
structured-supported scaffold	temporary work platform hung at an elevated location that is attached to a structure with a rigid means of support
stud	one of a series of vertical structural members used as support in walls and partitions
supported scaffold	platform created from brackets, poles, frames, etc., and made stable with the use of tie-ins, guylines, etc.

suspended scaffold or swing scaffold	platform supported by wire ropes or other non-rigid means and hung from an overhead structure
suspension hanger	component that allows putlogs to be attached by means of wire rope to an overhead anchor point
suspension trauma	medical condition caused when a user is suspended in a harness after a fall
sway brace	portion of the scaffold that provides diagonal support for a series of rakers
swing stage	means a work platform that is raised and lowered by manual or powered hoisting equipment, supported by 2 or more suspension lines
swivel bolts and wedge clamps	right angle clamps with two separate bodies attached to one another with a pin
swivel clamp	connecting device consisting of two separate clamp bodies attached with a rivet pin
swivel jack	threaded rod with an adjustment handle equipped with an adjustable support mechanism at the base which allows it to move at various angles
symbol	sign, character or visual used to represent something
system scaffold	scaffold that consists of posts with fixed connection points that accept runners, bearers, and diagonals
system side bracket	single engineered brace that combines a needle bearer, a raker, and a raker brace into welded unit
system suspended adjustable post scaffold	work platform suspended from a post/standard that typically has two node points and a threaded adjustable rod
temporary platform	surface that is used only for a limited period of time and is not meant to be part of the final erected scaffold
temporary structure	any structure erected during construction that is removed upon completion of the project
tension	pulling forces on a component
tension raker bracing	structural diagonal scaffold members, always under tension, that support cantilevered platforms, bridges, and putlogs from above
thimble	metal fitting placed inside of the eye of a wire rope to protect the eye
three-point contact	keeping one hand and two feet or two hands and one foot on the ladder at all times
throat header	structural truss with beveled ends that allow it to seat firmly into the walls of a boiler throat
through access or staggered through access	attachable ladder feature that allows users to pass through the side rails, swing gates or access gate panels to reach the platform
through tie	positive connection that clamps tubes to the inside and outside faces of wall openings
thrustout	structural member of a suspension scaffold or outrigger scaffold which provides support for the scaffold by extending the scaffold point of attachment to a point out and away from the structure or building

tieback	steel rope used to anchor the suspended scaffold back to the structure it is resting on
tie-in or tie	stabilizing device used between the scaffold framework and an adjoining building or structure to increase lateral strength and rigidity
tiers or lifts	any one of the given levels on the scaffold
timber hitch	knot used for fastening rope to posts or hoisting planks, timbers, tubes, and other cylindrical materials
title block	box on a print that contains information about the print
toeboard	baseboard around the edge of a scaffold platform to help prevent objects, tools, and materials from falling off and injuring employees below
transverse cross bracing	the crossing of two tubes fastened at a center point to create an x
trapeze	preassembled section of a hanger that is hoisted and hung off a supporting structure, creating the starting point for one or more scaffold bays
tread	horizontal portion on the top of a step on a stairway or stair-type ladder
truss	specially braced scaffold component used to support a work platform and bridge areas
tube	length of hollow steel or aluminum pipe used for constructing scaffolds
tube-to-shoring tie-in	friction connection consisting of shoring post set between two concrete slabs or steel structures to create an attachment point for a scaffold's tie-in location
tube and clamp or coupler scaffold	system consisting of various lengths of tubes that serve as posts, runners, bearers, braces, and ties fastened together with right-angle and swivel clamps to form an infinitely adjustable scaffold framework
tube to shoring tie	friction connection, similar to the reveal tie, that attaches to a wedged shoring post at a right angle with a right-angle clamp
tube	basic component part of a tube and clamp scaffold that can be used as a post, bearer, runner, brace, guardrail, or even a tie
turfer	lifting device used to raise or lower the suspended platform
ultimate load	also known as destructive load or failure load amount; the amount of weight that causes structural failure when placed on a scaffold structure during testing
uniform distributed load (UDL)	load spread evenly over a substantial portion or over the entire area of the platform
uplift	wind moving across the deck of a scaffold, causing planks to lift up and blow off if not secured; principle similar to the same way an airplane wing creates lift
user	one who has access to an elevated platform to perform work or complete the tasks at hand
vertical lifeline or dropline	rope extending from an independent anchorage point above the user down to the lanyard and that attached to the dropline with a grabbing device
vertical post	vertical member of the scaffold that supports the load and is a firm point for lateral attachment

walkway	raised passageway connecting two different platforms or landings at the same elevation
wane	lack of bark or wood on a plank, except on eased edges, that makes the plank smaller than standard
welded frame scaffold	metal frame structure mostly made of prefabricated welded sections that consist of posts and horizontal bearers with intermediate cross members
wind latch	component used to secure deck planking and resist uplift forces that can lift the planking off the scaffold bearer/transom
wind load	force of the wind acting as a UDL on the exposed areas of a scaffold
wire rope	assembly of wires woven onto strands that are then woven around a core
wire rope clip	fastening device commonly used for forming an eye at the end of wire rope or attaching wire rope to an anchor point
work level	platform level that contributes to the live load because it is intended to support workers, equipment and materials; also called a tier
working load	actual load such as material loads, live loads, wind loads, and equipment loads applied to the scaffold
work positioning system	combination of equipment that secures a user on an elevated vertical surface while preventing a fall of more than 2'-0" and that permits the user to use both hands freely
working sketch	freehand drawing technique used to describe the size and shape of an object, quickly express an idea or show views of an object not included on a print
working span	center two-thirds of a plank where most of the load bearing activity occurs
wrap/ring	assembly of two bearers/transoms and two runners/ledgers that create the lower or upper half of the bay