

RED SEAL

THE INTERPROVINCIAL STANDARDS RED SEAL PROGRAM



National Occupational Analysis

2012

Lather (Interior
Systems Mechanic)



Human Resources and
Skills Development Canada

Ressources humaines et
Développement des compétences Canada

Canada

Lather (Interior Systems Mechanic)

2012

Trades and Apprenticeship Division

Division des métiers et de l'apprentissage

Labour Market Integration Directorate

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Trades and Apprenticeship Division
Labour Market Integration Directorate
Human Resources and Skills Development Canada
140 Promenade du Portage, Phase IV, 5th Floor
Gatineau, Quebec K1A 0J9

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The Canadian Council of Directors of Apprenticeship (CCDA) recognizes this National Occupational Analysis (NOA) as the national standard for the occupation of Lather (Interior Systems Mechanic).

Background

The first National Conference on Apprenticeship in Trades and Industries, held in Ottawa in 1952, recommended that the federal government be requested to cooperate with provincial and territorial apprenticeship committees and officials in preparing analyses of a number of skilled occupations. To this end, Human Resources and Skills Development Canada (HRSDC) sponsors a program, under the guidance of the CCDA, to develop a series of NOAs.

The NOAs have the following objectives:

- to describe and group the tasks performed by skilled workers;
- to identify which tasks are performed in every province and territory;
- to develop instruments for use in the preparation of Interprovincial Red Seal Examinations and curricula for training leading to the certification of skilled workers;
- to facilitate the mobility of apprentices and skilled workers in Canada; and,
- to supply employers, employees, associations, industries, training institutions and governments with analyses of occupations.

ACKNOWLEDGEMENTS

The CCDA and HRSDC wish to express sincere appreciation for the contribution of the many tradespersons, industrial establishments, professional associations, labour organizations, provincial and territorial government departments and agencies, and all others who contributed to this publication.

Special acknowledgement is extended to the following representatives from the trade who attended a national workshop to develop the previous edition of this NOA in 2007.

Dan Bard	Ontario
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Barry Derkson	Alberta
Jerry Erb	New Brunswick
Bradley Gauthier	Manitoba
William Kiss	British Columbia
Art Meyer	British Columbia
Gordon M. Weddleton	Nova Scotia

This 2012 edition of the NOA was reviewed, updated and validated by industry representatives from across Canada to ensure that it continues to represent the skills and knowledge required in this trade. The coordinating, facilitating and processing of this analysis were undertaken by employees of the NOA development team of the Trades and Apprenticeship Division of HRSDC. The host jurisdiction of Manitoba also participated in the development of this NOA.

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LIST OF PUBLISHED
NATIONAL OCCUPATIONAL ANALYSES
(Red Seal Trades)

TITLE	NOC* Code
Agricultural Equipment Technician (2007)	7312
Appliance Service Technician (2011)	7332
Automotive Painter (2009)	7322
Automotive Service Technician (2011)	7321
Baker (2011)	6252
Boilermaker (2008)	7262
Bricklayer (2011)	7281
Cabinetmaker (2007)	7272
Carpenter (2010)	7271
Concrete Finisher (2006)	7282
Construction Craft Worker (2009)	7241
Construction Electrician (2011)	7241
Cook (2011)	6242
Electrical Rewind Mechanic (1999)	7333
Floorcovering Installer (2012)	7295
Glazier (2008)	7292
Hairstylist (2011)	6271
Heavy Duty Equipment Technician (2009)	7312
Industrial Electrician (2011)	7242
Industrial Mechanic (Millwright) (2009)	7311
Instrumentation and Control Technician (2010)	2243
Insulator (Heat and Frost) (2007)	7293
Ironworker (Generalist) (2010)	7264
Ironworker (Reinforcing) (2010)	7264
Ironworker (Structural/Ornamental) (2010)	7264
Landscape Horticulturist (2010)	2225
Lather (Interior Systems Mechanic) (2012)	7284

*National Occupational Classification

TITLE	NOC* Code
Machinist (2010)	7231
Metal Fabricator (Fitter) (2008)	7263
Mobile Crane Operator (2009)	7371
Motorcycle Mechanic (2006)	7334
Motor Vehicle Body Repairer (Metal and Paint) (2010)	7322
Oil Burner Mechanic (2006)	7331
Painter and Decorator (2011)	7294
Partsperson (2010)	1472
Plumber (2010)	7251
Powerline Technician (2009)	7244
Recreation Vehicle Service Technician (2006)	7383
Refrigeration and Air Conditioning Mechanic (2009)	7313
Rig Technician (2008)	8232
Roofer (2006)	7291
Sheet Metal Worker (2010)	7261
Sprinkler System Installer (2009)	7252
Steamfitter – Pipefitter (2010)	7252
Tilesetter (2010)	7283
Tool and Die Maker (2010)	7232
Tower Crane Operator (2012)	7371
Transport Trailer Technician (2008)	7321
Truck and Transport Mechanic (2010)	7321
Welder (2009)	7265

Requests for these National Occupational Analyses may be forwarded to:

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Human Resources and Skills Development Canada
140 Promenade du Portage, Phase IV, 5th Floor
Gatineau, Quebec K1A 0J9

These publications can be ordered or downloaded online at: www.red-seal.ca. Links to Essential Skills Profiles for some of these trades are also available on this website.

STRUCTURE OF ANALYSIS

To facilitate understanding of the nature of the occupation, the work performed is divided into the following categories:

Blocks	largest division within the analysis that is comprised of a distinct set of trade activities
Tasks	distinct actions that describe the activities within a block
Sub-Tasks	distinct actions that describe the activities within a task
Supporting Knowledge and Abilities	skills and knowledge that an individual must have to perform a sub-task

The analysis also provides the following information:

Trends	changes identified that impact or will impact the trade including work practices, technological advances, and new materials and equipment
Related Components	list of products, items, materials and other elements relevant to the block
Tools and Equipment	categories of tools and equipment used to perform all tasks in the block; these tools and equipment are listed in Appendix A
Context	information to clarify the intent and meaning of tasks

The appendices located at the end of the analysis are described as follows:

Appendix A – Tools and Equipment	non-exhaustive list of tools and equipment used in this trade
Appendix B – Glossary	definitions or explanations of selected technical terms used in the analysis
Appendix C – Acronyms	list of acronyms used in the analysis with their full name
Appendix D – Block and Task Weighting	block and task percentages submitted by each jurisdiction, and the national averages of these percentages; these national averages determine the number of questions for each block and task in the Interprovincial exam
Appendix E – Pie Chart	graph which depicts the national percentages of exam questions assigned to blocks
Appendix F – Task Profile Chart	chart which outlines graphically the blocks, tasks and sub-tasks of this analysis

DEVELOPMENT AND VALIDATION OF ANALYSIS

Development of Analysis

A draft analysis is developed by a committee of industry experts in the field led by a team of facilitators from HRSDC. This draft analysis 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.

Draft Review

The NOA development team then forwards a copy of the analysis and its translation to provincial and territorial authorities for a review of its content and structure. Their recommendations are assessed and incorporated into the analysis.

Validation and Weighting

The analysis is sent to all provinces and territories for validation and weighting. Participating jurisdiction consult with industry to validate and weight the document, examining the blocks, tasks and sub-tasks of the analysis as follows:

- BLOCKS** Each jurisdiction assigns a percentage of questions to each block for an examination that would cover the entire trade.
- TASKS** Each jurisdiction assigns a percentage of exam questions to each task within a block.
- SUB-TASKS** Each jurisdiction indicates, with a YES or NO, whether or not each sub-task is performed by skilled workers within the occupation in its jurisdiction.

The results of this exercise are submitted to the NOA development team who then analyzes the data and incorporates it into the document. The NOA provides the individual jurisdictional validation results as well as the national averages of all responses. The national averages for block and task weighting guide the Interprovincial Red Seal Examination plan for the trade.

This method for the validation of the NOA also identifies common core sub-tasks across Canada for the occupation. If at least 70% of the responding jurisdictions perform a sub-task, it shall be considered common core. Interprovincial Red Seal Examinations are based on 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 a specific jurisdiction
NO	sub-task not performed by qualified workers in the occupation in a specific jurisdiction
NV	analysis <u>N</u> ot <u>V</u> alidated by a province/territory
ND	trade <u>N</u> ot <u>D</u> esignated in a province/territory
NOT COMMON CORE (NCC)	sub-task, task or block performed by less than 70% of responding jurisdictions; these will not be tested by the Interprovincial Red Seal Examination for the trade
NATIONAL AVERAGE %	average percentage of questions assigned to each block and task in Interprovincial Red Seal Examination for the trade

Provincial/Territorial Abbreviations

NL	Newfoundland and Labrador
NS	Nova Scotia
PE	Prince Edward Island
NB	New Brunswick
QC	Quebec
ON	Ontario
MB	Manitoba
SK	Saskatchewan
AB	Alberta
BC	British Columbia
NT	Northwest Territories
YT	Yukon Territory
NU	Nunavut

ANALYSIS

Safe working procedures and conditions, accident prevention, and the preservation of health are of primary importance to industry in Canada. These responsibilities are shared and require the joint efforts of government, employers and employees. It is imperative that all parties become aware of circumstances 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 apply and be familiar with the Occupational Health and Safety Acts (OH&S) and Workplace Hazardous Materials Information System (WHMIS) regulations. As well, 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 training in all jurisdictions. As safety is an imperative part of all trades, it is assumed and therefore it is 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.

SCOPE OF THE LATHER (INTERIOR SYSTEMS MECHANIC) TRADE

“Lather (Interior Systems Mechanic)” is this trade’s official Red Seal occupational title approved by the CCDA. This analysis covers tasks performed by Lathers (Interior Systems Mechanic) whose occupational title has been identified by some provinces and territories of Canada under the following names:

	NL	NS	PE	NB	QC	ON	MB	SK	AB	BC	NT	YT	NU
Drywall and Acoustical Mechanic								✓					
Drywall, Acousting and Lathing Applicator						✓							
Interior Systems Installer					✓								
Lather (Interior Systems Mechanic)	✓	✓	✓	✓			✓				✓		
Lather - Interior Systems Mechanic									✓				
Wall & Ceiling Installer										✓			

Lathers handle, erect and install materials that are components in the construction of all or part of a structure. They lay out and install framework for ceiling systems, interior and exterior walls, floors and roofs. Lathers install various types of ceilings (e.g. suspended, spanned, direct contact), shielded walls (e.g. fire, sound, thermal separation) and various sheathing products. They also perform acoustical installations.

Materials that lathers install include: cold rolled steel components (e.g. steel studs, tracks, channels), metal door and window frames, stucco wire, vapour barriers and insulation, sheathing products (e.g. gypsum and cement products), specialty architectural products and metal lath.

Lathers are employed by construction companies and drywall contractors. They may also be self-employed. In the residential construction industry, they construct, maintain and renovate from single family housings to multi-story apartments. In the commercial, institutional and industrial construction sectors they build, maintain and renovate structures such as commercial buildings, schools, hospitals and manufacturing complexes.

Lathers work both indoors and outdoors year round. They may specialize in individual aspects of the trade such as layout, wall framing and drywall installation. Lathers use a variety of hand and power tools. The installation of metal stud framing and suspended ceilings often requires the use of lasers and powder-actuated tools.

Key attributes for people in this trade are good eye-hand coordination, the ability to work at heights and the ability to pay attention to detail. Lathers must be able to read and interpret information from drawings, blueprints and specifications. The work may require lifting and positioning heavy building materials in a fast-paced environment. The work is physically demanding and requires the use of personal protective equipment. Workers in this trade carry out their work in teams and independently.

This analysis recognizes similarities and overlaps with the work of carpenters, sheet metal workers, insulators and drywall tapers.

With experience, lathers may act as mentors and trainers to apprentices in the trade. They may also advance to positions such as estimators, supervisors, training coordinators and project managers.

OCCUPATIONAL OBSERVATIONS

Self-levelling lasers are becoming more affordable and are accurate over longer distances. There is an increase in the complexity of wall and ceiling systems resulting in requirements for ongoing training.

Safety awareness and training is becoming an essential part of the trade. Such safety training may involve additional certification in areas such as first aid, fall protection and elevated platform operation.

In certain locations, the enforcement of seismic requirements and fire rated installations is becoming more prevalent.

Increasing compliance with industry standards is causing lathers to pay closer attention to construction specifications and details.

The increased demand for structural steel stud framed buildings is resulting in new framing technologies for lathers.

The use of both structural and non-structural panels is becoming more popular due to an increase in the number of approved manufacturers' panelization products. Lathers build panels either on-site or in a shop environment, using these products, in accordance with specifications.

There is an increased demand for better-trained personnel who are prepared to expand their trade knowledge after certification. The need for ongoing learning in the lather trade is driven partly by technological change, as is reflected in the trend toward product-specific training in areas such as firestop and Exterior Insulation Finish System (EIFS) operations.

Cordless power tools are becoming industry standards for framing and are becoming more user-friendly.

Measuring of products is shifting from the use of "gauges" to "mils". The identification of the mils typically has a standardized colour coding system.

Emphasis on environmentally conscientious construction, through initiatives such as Leadership in Energy and Environmental Design (LEED), is becoming more prevalent.

Trends	Laser levelling technology is becoming more accurate, less expensive and more user-friendly.
Related Components	All components apply.
Tools and Equipment	See Appendix A.

Task 1

Maintains tools and equipment.

Context	The proper and regular maintenance of the tools of the trade is very important to ensure the safety of the user and a well-constructed finished product.
----------------	--

Sub-task

A-1.01 Maintains hand tools.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-1.01.01	knowledge of types of hand tools such as snips, knives, tape measures, hammers and nippers
A-1.01.02	knowledge of hand tool limitations
A-1.01.03	ability to organize and store hand tools
A-1.01.04	ability to clean and lubricate hand tools
A-1.01.05	ability to recognize worn, damaged and defective hand tools

Sub-task**A-1.02 Maintains power tools.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-1.02.01	knowledge of types of power tools such as drills, screw guns, hammer drills, drywall routers and laser power tools
A-1.02.02	knowledge of power tool limitations
A-1.02.03	knowledge of manufacturers' operating and maintenance instructions
A-1.02.04	ability to organize and store power tools
A-1.02.05	ability to recognize worn, damaged and defective power tools

Sub-task**A-1.03 Maintains powder-actuated tools.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-1.03.01	knowledge of types of powder-actuated tools and their applications
A-1.03.02	knowledge of types of pins and shots
A-1.03.03	knowledge of certification requirements for powder-actuated tools
A-1.03.04	knowledge of manufacturers' operating and maintenance instructions
A-1.03.05	ability to disassemble, clean and lubricate powder-actuated tools
A-1.03.06	ability to organize powder-actuated tools
A-1.03.07	ability to store shots
A-1.03.08	ability to dispose of shots
A-1.03.09	ability to recognize worn, damaged and defective powder-actuated tools

Sub-task**A-1.04 Maintains gas-actuated tools.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-1.04.01	knowledge of types of gas-actuated tools
A-1.04.02	knowledge of manufacturers' operating and maintenance instructions
A-1.04.03	ability to handle and dispose of gas cylinders and batteries
A-1.04.04	ability to disassemble, clean and lubricate gas-actuated tools
A-1.04.05	ability to organize and store gas-actuated tools
A-1.04.06	ability to recognize worn, damaged and defective gas-actuated tools

Sub-task**A-1.05 Maintains pneumatic tools.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
no	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-1.05.01	knowledge of types of pneumatic tools
A-1.05.02	knowledge of manufacturers' operating and maintenance instructions
A-1.05.03	knowledge of handling procedures for air compressors
A-1.05.04	ability to disassemble, clean and lubricate pneumatic tools
A-1.05.05	ability to drain air hoses and tanks
A-1.05.06	ability to organize and store pneumatic tools
A-1.05.07	ability to recognize worn, damaged and defective pneumatic tools

Sub-task**A-1.06 Maintains layout and measuring devices.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-1.06.01	knowledge of types of layout and measuring devices such as squares, measuring tapes, chalk lines and laser levels
A-1.06.02	ability to check accuracy of layout and measuring devices
A-1.06.03	ability to organize and store layout and measuring devices
A-1.06.04	ability to clean and lubricate layout and measuring devices
A-1.06.05	ability to recognize worn, damaged and defective layout and measuring devices

Task 2**Organizes work.**

Context Lathers use organizational skills to perform their tasks in a safe, efficient and effective manner.

Sub-task**A-2.01 Communicates with others.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-2.01.01	knowledge of trade terminology
A-2.01.02	ability to communicate with supervisors
A-2.01.03	ability to coordinate work with other trades
A-2.01.04	ability to participate in safety and information meetings
A-2.01.05	ability to communicate with laypersons
A-2.01.06	ability to communicate with engineers and architects

A-2.01.07	ability to mentor apprentices
A-2.01.08	ability to recognize audible and visible warning signals

Sub-task

A-2.02 Uses documentation.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-2.02.01	knowledge of types of documents such as plans, schedules, change orders and specifications
A-2.02.02	knowledge of company policies and procedures
A-2.02.03	knowledge of Occupational Health and Safety (OH&S) regulations
A-2.02.04	knowledge of WHMIS symbols and MSDS
A-2.02.05	ability to interpret National Building Code
A-2.02.06	ability to complete work-related documents such as records, time sheets and deficiency lists
A-2.02.07	ability to fill out safety documentation such as accident reports and hazard assessments
A-2.02.08	ability to identify and label hazardous materials according to WHMIS
A-2.02.09	ability to interpret documents such as manuals, manufacturers' specifications and meeting minutes
A-2.02.10	ability to recognize postings such as stop work orders and warning signs
A-2.02.11	ability to track and complete change orders

Sub-task

A-2.03 Uses blueprints and drawings.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-2.03.01	knowledge of different views such as elevation, section and detail
A-2.03.02	knowledge of components of blueprints and drawings such as symbols, scales and schedules

A-2.03.03	knowledge of types of projections such as isometric and orthographic
A-2.03.04	ability to source information on blueprints, drawings and specifications
A-2.03.05	ability to visualize finished product
A-2.03.06	ability to draw a sketch
A-2.03.07	ability to scale dimensions

Sub-task

A-2.04 Plans daily tasks.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-2.04.01	knowledge of other trades' work requirements
A-2.04.02	knowledge of sequence of operations and schedules
A-2.04.03	knowledge of utility requirements such as electrical, heating, lighting and ventilation
A-2.04.04	ability to determine labour and equipment requirements
A-2.04.05	ability to coordinate work with other trades

Sub-task

A-2.05 Estimates materials and supplies.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-2.05.01	knowledge of area to be completed
A-2.05.02	knowledge of site conditions and restrictions
A-2.05.03	knowledge of available materials
A-2.05.04	ability to interpret plans and specifications
A-2.05.05	ability to perform mathematical calculations such as surface area, linear measurement and quantity requirements in both metric and imperial measurements
A-2.05.06	ability to interpret site measurements

Sub-task**A-2.06 Maintains safe work environment.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-2.06.01	knowledge of types of health hazards such as excessive noise, fumes, dust and mould
A-2.06.02	knowledge of employer policies and procedures
A-2.06.03	knowledge of first aid requirements
A-2.06.04	knowledge of workers' rights and responsibilities
A-2.06.05	knowledge of training requirements such as fall protection, confined space entry and material handling
A-2.06.06	knowledge of housekeeping practices
A-2.06.07	knowledge of fire safety
A-2.06.08	knowledge of emergency phone numbers
A-2.06.09	ability to comply with all regulations, policies and procedures in the workplace
A-2.06.10	ability to locate and recognize safety documentation such as MSDS and WHMIS labels
A-2.06.11	ability to perform all precautionary inspections to reduce on-site hazards
A-2.06.12	ability to identify on-site hazards such as electrical, working at heights, overhead dangers and heavy material
A-2.06.13	ability to erect barricades such as warning tape and plywood over holes in floor
A-2.06.14	ability to report on-site hazards to appropriate personnel
A-2.06.15	ability to keep maintenance logs of tools and equipment

Task 3**Performs routine trade activities.**

Context This task is made up of repetitive activities that lathers perform on a daily basis that apply to most aspects of the trade.

Sub-task**A-3.01 Performs measurements.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-3.01.01 knowledge of formulas such as area, radii and surface area
 A-3.01.02 ability to interpret scale from blueprints
 A-3.01.03 ability to transfer information from blueprints to job site
 A-3.01.04 ability to use measurement tools and equipment such as measuring tapes, scale rules and calculators
 A-3.01.05 ability to work in both metric and imperial measurements
 A-3.01.06 ability to perform basic mathematical operations

Sub-task**A-3.02 Uses scaffolding and access equipment.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-3.02.01 knowledge of types of access equipment such as ladders, aerial lifts and swing stages
 A-3.02.02 knowledge of various types of scaffolding
 A-3.02.03 knowledge of certification requirements for scaffolding and access equipment
 A-3.02.04 knowledge of fall protection requirements when working on access equipment

A-3.02.05	knowledge of safe use of ladders such as safe angles of ladders and three-point contact rule
A-3.02.06	knowledge of regulations regarding the use of scaffolding
A-3.02.07	knowledge of worksite surroundings such as power lines, uneven surfaces and soft ground
A-3.02.08	knowledge of uses of scaffolding
A-3.02.09	ability to set up step ladders and extension ladders
A-3.02.10	ability to work from access equipment
A-3.02.11	ability to erect various types of scaffolding
A-3.02.12	ability to recognize unsafe, worn, damaged and defective scaffolding and access equipment

Sub-task

A-3.03 Uses jigs and templates.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-3.03.01	knowledge of types of jigs such as multi-use and single-use
A-3.03.02	knowledge of types of templates such as manufactured or job built
A-3.03.03	knowledge of material used for jigs and templates such as wood, plywood, drywall, steel studs and track
A-3.03.04	knowledge of applications of jigs and templates such as building bulkheads and pre-fabricated wall panels
A-3.03.05	ability to determine when to build and use jigs and templates
A-3.03.06	ability to assemble and square jigs and templates
A-3.03.07	ability to build repetitive internal frame structures using jigs and templates

Sub-task**A-3.04 Prepares work site.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-3.04.01	knowledge of site requirements for tasks such as cleanliness, lighting, power, heating and ventilation
A-3.04.02	knowledge of requirements for scaffolding and access equipment
A-3.04.03	knowledge of amount and placement of required materials
A-3.04.04	ability to perform job hazard analysis
A-3.04.05	ability to ensure adequate lighting
A-3.04.06	ability to install hoarding as needed
A-3.04.07	ability to protect surrounding environment using materials such as dust barriers and drop cloths

Sub-task**A-3.05 Handles materials, supplies and products.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-3.05.01	knowledge of loading and unloading procedures
A-3.05.02	knowledge of storage procedures for materials such as drywall, ceiling tiles and adhesives
A-3.05.03	knowledge of delivery access to job site
A-3.05.04	knowledge of sequence in which materials are to be used
A-3.05.05	ability to identify materials
A-3.05.06	ability to locate materials to accommodate construction, future partitions and weight distribution
A-3.05.07	ability to operate handling equipment such as pallet jacks and drywall carts
A-3.05.08	ability to handle material manually
A-3.05.09	ability to protect and secure materials
A-3.05.10	ability to dispose of surplus and waste material

Sub-task**A-3.06 Lays out work.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-3.06.01	knowledge of installation sequence
A-3.06.02	knowledge of work requirements of other trades
A-3.06.03	knowledge of applied mathematics and geometry such as 3-4-5 triangle (Pythagorean theorem), radii and angles
A-3.06.04	knowledge of construction techniques
A-3.06.05	knowledge of floor, wall and ceiling systems' intended use
A-3.06.06	ability to transfer information from blueprint to job site
A-3.06.07	ability to transfer layout from floor to ceiling for suspended ceilings and bulkheads
A-3.06.08	ability to use layout tools and equipment such as chalk lines, squares, lasers and tape measures
A-3.06.09	ability to determine and mark gridlines
A-3.06.10	ability to use benchmarks to transfer elevations to elements such as door and window openings, bulkheads and ceilings
A-3.06.11	ability to transfer benchmarks from one area to another
A-3.06.12	ability to check gridlines for square
A-3.06.13	ability to identify irregularities on floors, walls and ceiling such as high spots on floor and lowest obstacle for ceiling layout
A-3.06.14	ability to calculate elevation of finished floors and ceilings
A-3.06.15	ability to offset lines to re-establish gridlines
A-3.06.16	ability to lay out corners, angles and radii
A-3.06.17	ability to make allowances to achieve finish dimension on walls, ceilings and floors

Sub-task**A-3.07 Applies sealants and gaskets.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-3.07.01	knowledge of types of sealants such as acoustical, fireproof, thermal, silicone and latex caulking
A-3.07.02	knowledge of types of gaskets such as neoprene and foam
A-3.07.03	knowledge of sealant and gasket applications such as prevention of reaction of dissimilar metals, reduction of sound transmission and prevention of drafts
A-3.07.04	ability to select and use tools such as caulking guns and knives
A-3.07.05	ability to determine amount of sealants and gaskets required for tasks
A-3.07.06	ability to tool sealants
A-3.07.07	ability to remove and dispose of excess sealant

Sub-task**A-3.08 Uses personal protective equipment (PPE) and safety equipment.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

A-3.08.01	knowledge of types of PPE such as safety harnesses, work boots, respirators, hard hats and safety glasses
A-3.08.02	knowledge of types of safety equipment such as fire extinguishers, eye wash stations and first aid kits
A-3.08.03	knowledge of certification and training requirements for PPE and safety equipment
A-3.08.04	knowledge of operation of fire extinguisher equipment
A-3.08.05	knowledge of location of PPE and safety equipment
A-3.08.06	ability to select PPE for task performed
A-3.08.07	ability to follow WHMIS procedures
A-3.08.08	ability to recognize limitations of use of PPE and safety equipment

- A-3.08.09 ability to inspect PPE and safety equipment
- A-3.08.10 ability to organize and store PPE and safety equipment

Trends	There is an increased use of steel floor decking systems. More efficient building technologies are being developed for the steel framing industry. Seismic restraints are becoming more common in the construction industry.
Related Components (including, but not limited to)	Steel members, studs, tracks, angles, carrying channels, furring channels, fasteners, metal door frames, metal window frames, wood backing (plywood), metal backing (metal strapping), flat metal for cross bracing, bridging (bridging clips and channels), steel joists, bracing, stiffeners, framing accessories.
Tools and Equipment	Hand tools, power tools, layout and measuring tools, scaffolding and access equipment, PPE and safety equipment.

Task 4**Erects non load-bearing steel assemblies.**

Context	Non load-bearing steel assemblies are used to create walls, ceilings and bulkheads. Their erection should conform to manufacturers' specifications and applicable codes.
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Sub-task**B-4.01 Frames non load-bearing walls.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

B-4.01.01	knowledge of non load-bearing wall components such as studs, tracks and channels
B-4.01.02	knowledge of framing procedures
B-4.01.03	knowledge of industry standards and applicable building code
B-4.01.04	knowledge of clearances required for deflection and expansion
B-4.01.05	knowledge of rough opening sizes

B-4.01.06	knowledge of attaching surfaces
B-4.01.07	ability to identify component thicknesses such as gauge and mils
B-4.01.08	ability to select and use tools and equipment such as hammer drills, screw guns and plumb bobs
B-4.01.09	ability to select and use fasteners such as various self-tapping screws, pin bolts and adhesives
B-4.01.10	ability to measure and cut components
B-4.01.11	ability to determine stud spacing
B-4.01.12	ability to place and attach components

Sub-task

B-4.02 Frames spanned ceilings.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

B-4.02.01	knowledge of components such as studs and tracks
B-4.02.02	knowledge of framing procedures
B-4.02.03	knowledge of industry standards
B-4.02.04	knowledge of span tables
B-4.02.05	knowledge of rough opening sizes
B-4.02.06	knowledge of fastening requirements
B-4.02.07	knowledge of attaching surfaces
B-4.02.08	ability to identify component thicknesses such as gauges and mils
B-4.02.09	ability to select and use tools and equipment such as laser levels and screw guns
B-4.02.10	ability to select and use fasteners such as framing screws, concrete pins and pin bolts
B-4.02.11	ability to measure and cut components
B-4.02.12	ability to determine ceiling framing member spacing
B-4.02.13	ability to place and attach components

Sub-task**B-4.03 Frames suspended drywall ceilings.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

B-4.03.01	knowledge of components such as tracks, angles, carrying channels and furring channels
B-4.03.02	knowledge of framing procedures
B-4.03.03	knowledge of industry standards and applicable building code
B-4.03.04	knowledge of rough opening sizes
B-4.03.05	knowledge of material to be installed
B-4.03.06	knowledge of fastening requirements
B-4.03.07	knowledge of structural requirements
B-4.03.08	knowledge of attaching surfaces
B-4.03.09	ability to check requirements for access panels such as for electrical fixtures, ducts and plumbing
B-4.03.10	ability to select and use tools and equipment such as laser levels, screw guns and nippers
B-4.03.11	ability to select and use fasteners such as tie wire, hanger wire and eyelets
B-4.03.12	ability to identify material thicknesses such as gauge and mils of framing members and thickness of drywall
B-4.03.13	ability to measure and cut components
B-4.03.14	ability to determine component spacing
B-4.03.15	ability to attach components

Sub-task**B-4.04 Frames non load-bearing bulkheads.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

B-4.04.01	knowledge of functions such as cosmetic, concealing electrical and mechanical devices, smoke barrier and defining room transitions
B-4.04.02	knowledge of components such as studs and tracks
B-4.04.03	knowledge of bulkhead architectural features such as light coves, valences and curves
B-4.04.04	knowledge of framing procedures
B-4.04.05	knowledge of industry standards
B-4.04.06	knowledge of component spacing
B-4.04.07	knowledge of rough opening sizes
B-4.04.08	knowledge of fastening requirements
B-4.04.09	knowledge of attaching surfaces
B-4.04.10	ability to identify material thicknesses
B-4.04.11	ability to measure and cut components
B-4.04.12	ability to determine component spacing
B-4.04.13	ability to brace bulkhead
B-4.04.14	ability to place and attach components
B-4.04.15	ability to maximize use of materials
B-4.04.16	ability to form curves for bulkheads
B-4.04.17	ability to select and use tools and equipment such as laser levels and screw guns
B-4.04.18	ability to select and use fasteners such as pin bolts, framing screws and drywall screws

Sub-task**B-4.05 Installs metal door and window frames.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

B-4.05.01	knowledge of types of metal door frames such as welded and knock-down
B-4.05.02	knowledge of metal door frame swing
B-4.05.03	knowledge of metal window and door frame throat sizes
B-4.05.04	knowledge of wall finishes
B-4.05.05	ability to level and plumb
B-4.05.06	ability to attach frame to studs and floor
B-4.05.07	ability to select and use tools and equipment such as spirit levels, plumb bobs, squares and screw guns
B-4.05.08	ability to select and install fasteners such as screws and anchors
B-4.05.09	ability to determine throat size of windows and doors
B-4.05.10	ability to assemble knock-down frames
B-4.05.11	ability to install shims
B-4.05.12	ability to determine secure side of window
B-4.05.13	ability to detect and correct defects such as deformed frames and inconsistent spreaders
B-4.05.14	ability to place frame in correct position

Sub-task**B-4.06 Installs backing.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

B-4.06.01	knowledge of types of backing such as plywood and wide metal strapping
B-4.06.02	knowledge of backing requirements and placement
B-4.06.03	knowledge of metal strapping thickness
B-4.06.04	ability to determine backing location

B-4.06.05	ability to cut and shape backing
B-4.06.06	ability to fasten backing
B-4.06.07	ability to select and use tools and equipment such as screw guns, circular saws and chop saws
B-4.06.08	ability to select and use fasteners such as framing screws and drywall screws

Task 5

Erects load-bearing steel assemblies.

Context All load (wind and/or weight) bearing assemblies need to be designed and approved by engineers before lathers can begin their work. The engineers' specifications shall be strictly adhered to.

Sub-task

B-5.01 Frames load-bearing walls.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

5.01.01	knowledge of types of load-bearing walls such as parapet walls and exterior walls
5.01.02	knowledge of load-bearing wall components such as studs, flat metal for cross bracing, tracks and bridging
5.01.03	knowledge of framing procedures
5.01.04	knowledge of rough opening sizes
5.01.05	knowledge of attaching surfaces such as concrete and steel
5.01.06	knowledge of basic welding procedures and plasma cutting
5.01.07	ability to follow engineer's specifications and directions
5.01.08	ability to identify component thicknesses such as gauges and mils
5.01.09	ability to measure and cut components
5.01.10	ability to determine stud spacing
5.01.11	ability to place and attach load-bearing wall components such as cross bracing, strapping and bridging

- 5.01.11 ability to select and use tools and equipment such as hammer drills, impact drivers, chop saws and plumb bobs
- 5.01.12 ability to select and use fasteners such as self-drilling screws, pin bolts and powder-actuated fasteners

Sub-task

B-5.02 Frames exterior ceilings and soffits.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

- B-5.02.01 knowledge of exterior ceiling and soffit components such as furring channel, studs, flat metal, angles and tracks
- B-5.02.02 knowledge of attaching surfaces such as concrete, steel and wood
- B-5.02.03 knowledge of framing procedures
- B-5.02.04 knowledge of rough opening sizes
- B-5.02.05 ability to follow engineers' specifications and directions
- B-5.02.06 ability to identify component thicknesses such as gauges and mils
- B-5.02.07 ability to measure and cut components
- B-5.02.08 ability to determine component spacing
- B-5.02.09 ability to place and attach components
- B-5.02.10 ability to select and use tools and equipment such as hammer drills, impact drivers, chop saws and plumb bobs
- B-5.02.11 ability to select and use fasteners such as self-drilling screws, pin bolts and powder-actuated fasteners
- B-5.02.12 ability to install vertical bracing for wind load

Sub-task**B-5.03 Frames load-bearing bulkheads.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

B-5.03.01	knowledge of functions such as cosmetic, concealing electrical and mechanical devices, protection from weather and defining room transitions
B-5.03.02	knowledge of types of load-bearing bulkheads such as store fronts, light coves and canopies
B-5.03.03	knowledge of components such as studs, backing, hangers and tracks
B-5.03.04	knowledge of structural requirements
B-5.03.05	knowledge of framing procedures
B-5.03.06	knowledge of component spacing
B-5.03.07	knowledge of rough opening sizes
B-5.03.08	knowledge of fastening requirements
B-5.03.09	knowledge of attaching surfaces
B-5.03.10	knowledge of basic welding procedures and plasma cutting
B-5.03.11	ability to follow engineers' specifications and directions
B-5.03.12	ability to identify material thicknesses such as gauges and mils
B-5.03.13	ability to measure and cut components
B-5.03.14	ability to determine component spacing
B-5.03.15	ability to place and attach components
B-5.03.16	ability to maximize use of materials
B-5.03.17	ability to form curves for bulkheads
B-5.03.18	ability to select and use tools and equipment such as laser levels and screw guns
B-5.03.19	ability to select and use fasteners such as pin bolts, framing screws and drywall screws
B-5.03.20	ability to install bracing and backing

Sub-task**B-5.04 Frames load-bearing floors.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

B-5.04.01	knowledge of load-bearing floor components such as steel joists, channels, flat metal, bridging, bracing and stiffeners
B-5.04.02	knowledge of framing procedures
B-5.04.03	knowledge of rough opening sizes
B-5.04.04	knowledge of attaching surfaces such as concrete and steel
B-5.04.05	knowledge of basic welding procedures and plasma cutting
B-5.04.06	ability to follow engineers' specifications and directions
B-5.04.07	ability to identify component thicknesses such as gauges and mils
B-5.04.08	ability to measure and cut components
B-5.04.09	ability to determine component spacing
B-5.04.10	ability to place and attach components
B-5.04.11	ability to select and use tools and equipment such as hammer drills, impact drivers, chop saws and laser levels
B-5.04.12	ability to select and use fasteners such as self-drilling screws, pin bolts and concrete anchors

Sub-task**B-5.05 Frames load-bearing roofs.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

B-5.05.01	knowledge of load-bearing roof components such as studs, flat metal for cross bracing, tracks and bridging
B-5.05.02	knowledge of framing procedures
B-5.05.03	knowledge of rough opening sizes
B-5.05.04	knowledge of attaching surfaces such as concrete and steel
B-5.05.05	knowledge of basic welding procedures and plasma cutting

- B-5.05.06 ability to follow engineers' specifications and directions
- B-5.05.07 ability to identify component thicknesses such as gauges and mils
- B-5.05.08 ability to measure and cut components
- B-5.05.09 ability to determine component spacing
- B-5.05.10 ability to place and attach components
- B-5.05.11 ability to select and use tools and equipment such as hammer drills, impact drivers, chop saws and levels
- B-5.05.12 ability to select and use fasteners such as self-drilling screws, pin bolts, and nuts and bolts
- B-5.05.13 ability to install manufactured trusses
- B-5.05.14 ability to install bridging and bracing

Trends	There is a wider variety of wall and ceiling component systems such as drywall grid systems and pre-made wood backing, resulting in faster installation. There is an increased emphasis on smoke and fire stopping, resulting in some lathers specializing in the installation of smoke and fire barriers. Lathers have more choice in the types of clips such as glue-on and friction fit clips.
Related Components (including, but not limited to)	Steel framing members (steel studs, tracks, angles, carrying channels, furring channels, tie wire, hanger wire), drywall (regular, moisture-resistant, fire-rated, vinyl board, core board), cement board, drywall trim and mouldings, drywall tape, drywall compound, sandpaper fasteners, caulking, insulation (batt and rigid), frames, security mesh, lead shielding, access panels, acoustical grid and tile, architectural panels, access flooring (pedestals, grids, panels), pre-finished sound panels.
Tools and Equipment	Hand tools, power tools, layout and measuring tools, scaffolding and access equipment, PPE and safety equipment.

Task 6

Installs wall systems and components.

Context Lathers install wall systems and components to match project requirements such as security, reusable partitions and accessibility of covered devices. Components are installed to provide desired appearance and protect against sound and fire.

Sub-task

C-6.01 Installs demountable walls.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

- C-6.01.01 knowledge of types of demountable wall systems such as gravity lock, side clip and batten systems
- C-6.01.02 knowledge of components such as baseboards, J trims, corner pieces, top tracks and battens
- C-6.01.03 knowledge of types of fastening systems such as progressive and non progressive
- C-6.01.04 knowledge of types of drywall used in demountable wall systems such as vinyl covered, cloth covered and veneer covered
- C-6.01.05 knowledge of matching of panels (dye lots)
- C-6.01.06 knowledge of sizes of prefinished drywall
- C-6.01.07 knowledge of framing systems used with demountable wall systems
- C-6.01.08 ability to place studs for windows, doors and corners when framing
- C-6.01.09 ability to cut panel and trim to minimize waste
- C-6.01.10 ability to cut back of sheets for outside angles and off angles using tools such as routers, knives and rasps
- C-6.01.11 ability to hang and fasten sheets
- C-6.01.12 ability to cut out openings for windows, doors and other penetrations
- C-6.01.13 ability to mitre and install plastic trims and aluminium frames
- C-6.01.14 ability to fabricate a finished edge on vinyl-covered drywall
- C-6.01.15 ability to install aluminium window and door frames in demountable wall systems
- C-6.01.16 ability to handle pre-finished products to avoid damage
- C-6.01.17 ability to install channels on steel studs for hanging gravity system

- C-6.01.18 ability to install gravity clips on the back of drywall
 C-6.01.19 ability to select and use tools such as routers, keyhole saws and knives

Sub-task

C-6.02 Installs drywall.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

- C-6.02.01 knowledge of types of drywall such as fire-rated, regular and moisture-resistant
 C-6.02.02 knowledge of common thicknesses, widths and lengths of drywall
 C-6.02.03 knowledge of finished ceiling heights
 C-6.02.04 knowledge of multi-layer requirements
 C-6.02.05 knowledge of sequence of installation of sheets
 C-6.02.06 ability to place drywall sheets
 C-6.02.07 ability to ensure that studs, and door and window frames are level and plumb during installation of sheets
 C-6.02.08 ability to cut drywall
 C-6.02.09 ability to install drywall on concrete and block walls using materials such as adhesives and concrete nails
 C-6.02.10 ability to bend drywall
 C-6.02.11 ability to cut openings for windows, doors and penetrations
 C-6.02.12 ability to select and use tools such as screw guns, routers and drywall lifters
 C-6.02.13 ability to select and use fasteners such as screws, nails and concrete nails

Sub-task**C-6.03 Finishes drywall. (NOT COMMON CORE)**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
no	yes	NV	NV	yes	no	no	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

C-6.03.01	knowledge of types of filling compounds
C-6.03.02	knowledge of types of drywall tape
C-6.03.03	knowledge of abrasives
C-6.03.04	knowledge of sanding techniques
C-6.03.05	ability to mix the selected compound to suit site conditions
C-6.03.06	ability to embed tape
C-6.03.07	ability to apply compounds for rough coats
C-6.03.08	ability to apply compounds for finish coats
C-6.03.09	ability to sand joints

Sub-task**C-6.04 Installs drywall trims and mouldings.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

C-6.04.01	knowledge of types of drywall trim such as corner beads, L beads, J beads, and expansion and control joints
C-6.04.02	knowledge of corner beads such as plastic, metal and bullnose
C-6.04.03	knowledge of types of mouldings such as plaster, cove, step and ornamental
C-6.04.04	knowledge of trim and moulding locations such as corners, closet edges, transitions and door frames
C-6.04.05	ability to select trim and mouldings for application or location
C-6.04.06	ability to measure and cut trim and mouldings
C-6.04.07	ability to fasten using methods such as screwing, clinching and gluing
C-6.04.08	ability to install trims to provide reveal

Sub-task**C-6.05 Installs security mesh.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

C-6.05.01	knowledge of mesh properties such as gauge, materials and mesh size
C-6.05.02	knowledge of applications for security mesh such as banks, secure storage rooms and prisons
C-6.05.03	knowledge of required butt at joints
C-6.05.04	ability to cut mesh using tools such as bolt cutters, nibblers, electric shears and rotary cut-off tools
C-6.05.05	ability to attach mesh to framing with fasteners such as security screws and regular screws

Sub-task**C-6.06 Installs access panels.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

C-6.06.01	knowledge of uses and types of access panels such as fire-rated and standard
C-6.06.02	knowledge of panel materials such as plastic, drywall, metal and medium density fibre (MDF) board
C-6.06.03	knowledge of requirements for fire-rated access panels
C-6.06.04	knowledge of panel components such as hinges, springs and latches
C-6.06.05	ability to select panels for application
C-6.06.06	ability to fasten panels in place
C-6.06.07	ability to locate and modify wall and ceiling openings for access panels
C-6.06.08	ability to install framing for opening
C-6.06.09	ability to ensure panels are plumb and aligned

Task 7

Installs ceiling systems.

Context

Lathers install various ceiling systems for purposes such as aesthetic, acoustic, and concealment of electrical and mechanical devices.

Suspended ceilings are supported by vertical supports and bulkheads or walls. Bulkheads are supported by walls and/or higher substrates such as higher ceilings, slabs and other bulkheads. Non-suspended ceilings are made up of various types of materials such as glued-on tiles, stapled tiles and panels.

Sub-task

C-7.01 Installs suspended component ceilings.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

C-7.01.01	knowledge of types of suspended component ceilings such as acoustical, drywall and metal linear
C-7.01.02	knowledge of suspended ceiling components such as inserts, hanger wire, main and cross T's, perimeter mouldings and panels
C-7.01.03	knowledge of methods of installing hangers such as tying wires to structure, punched Q-deck and using various anchors
C-7.01.04	knowledge of types of grid systems such as concealed, fine grid and basket weave
C-7.01.05	knowledge of requirements for hanger wire according to national, provincial/territorial and municipal building codes
C-7.01.06	knowledge of requirements for utility fixtures
C-7.01.07	knowledge of types of T-bar systems such as fire-rated and standard
C-7.01.08	ability to cut, place and secure hardware and panels
C-7.01.09	ability to cut out holes for electrical and mechanical devices
C-7.01.10	ability to handle pre-finished products to avoid damage
C-7.01.11	ability to adapt installation procedures to new systems
C-7.01.12	ability to locate expansion and control joints
C-7.01.13	ability to level, square and align ceiling grid
C-7.01.14	ability to calculate size of border panels to achieve desired ceiling layout
C-7.01.15	ability to install bridging

Sub-task**C-7.02 Installs non-suspended ceilings.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

C-7.02.01	knowledge of types of non-suspended ceilings such as glue-on and stapled tiles
C-7.02.02	knowledge of types of adhesives and fasteners
C-7.02.03	ability to prepare substrate to eliminate irregularities and ensure bonding
C-7.02.04	ability to lay out, cut and install strapping/furring
C-7.02.05	ability to lay out ceiling pattern
C-7.02.06	ability to level, square and align ceiling
C-7.02.07	ability to cut out holes for electrical and mechanical devices
C-7.02.08	ability to install tiles using adhesives and fasteners

Task 8**Installs access flooring systems.**

Context	Access flooring systems allow for air flow, electrical grounding, flexibility in room usage and easy access to wiring. Lathers must ensure that access flooring systems are level and stable.
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Sub-task**C-8.01 Installs pedestals and supporting hardware.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

C-8.01.01	knowledge of types of access floor systems such as rigid grid, free standing and snap lock
C-8.01.02	knowledge of types of pedestal heads such as grid and gridless
C-8.01.03	knowledge of types of supporting hardware such as stringers and screws

C-8.01.04	ability to determine starting point
C-8.01.05	ability to chalk lines for pedestal location
C-8.01.06	ability to install grids on pedestals
C-8.01.07	ability to modify pedestals
C-8.01.08	ability to place and fasten pedestals with glue and mechanical fasteners
C-8.01.09	ability to assemble pedestals
C-8.01.10	ability to level pedestals with laser levelling equipment

Sub-task

C-8.02 Installs flooring panels.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

C-8.02.01	knowledge of pre-finished flooring panels
C-8.02.02	knowledge of installation methods such as mechanically fastened and gravity fit
C-8.02.03	ability to cut and trim panels to fit
C-8.02.04	ability to cut holes in panels for penetrations
C-8.02.05	ability to place and secure panels
C-8.02.06	ability to select and install ramps and railings for computer access flooring
C-8.02.07	ability to select and use tools such as screw guns, suction cup panel lifters and band saws

Task 9

Installs sound barriers and lead radiation shielding.

Context Lathers install sound barriers to reduce sound transmission between areas to provide occupant privacy and comfort. Lead radiation shielding is installed to prevent radiation exposure in medical facilities and labs.

Sub-task

C-9.01 Installs sound barriers.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

- C-9.01.01 knowledge of types of sound barriers such as acoustical batt insulation, plenum baffles, lead sheeting, steel stud and drywall, resilient channels and pre-finished sound panels
- C-9.01.02 knowledge of types and properties of batt insulation such as fibreglass and mineral wool
- C-9.01.03 knowledge of types of foil-backed insulation such as single and double foil-backed
- C-9.01.04 knowledge of types of caulking and their applications
- C-9.01.05 ability to install foil-backed insulation with foil tape and tracks
- C-9.01.06 ability to cut and fit insulation
- C-9.01.07 ability to install pre-finished sound panels
- C-9.01.08 ability to install lead sheeting with wafer screws
- C-9.01.09 ability to caulk and seal penetrations and perimeter with acoustical caulking

Sub-task**C-9.02 Installs lead radiation shielding.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

C-9.02.01	knowledge of installation locations such as hospitals, dental offices and labs
C-9.02.02	knowledge of thicknesses and weights of lead shielding
C-9.02.03	knowledge of lead products and their effects
C-9.02.04	ability to cut shielding with knives and shears
C-9.02.05	ability to fasten shielding with wafer and drywall screws
C-9.02.06	ability to install lead-lined drywall on walls and ceilings
C-9.02.07	ability to cover screws with lead tabs
C-9.02.08	ability to encase electrical boxes with lead shielding
C-9.02.09	ability to treat inside and outside corners, and door and window frames
C-9.02.10	ability to handle lead shielding with gloves

Task 10

Installs smoke and fire barriers.

Context Smoke and fire barriers are installed by lathers to control the spread of fire and smoke, and delay the collapse of buildings to allow occupants to escape a building fire. The work must be done according to building codes, regulations and manufacturers' requirements.

Sub-task

C-10.01 Installs shaft wall systems.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

C-10.01.01	knowledge of sequence of construction of shaft walls
C-10.01.02	knowledge of shaft wall components such as J-track, I-studs, core board and fire caulking
C-10.01.03	knowledge of types of fasteners such as screws and pins
C-10.01.04	ability to seal all joints and cracks
C-10.01.05	ability to cut and plumb studs and tracks
C-10.01.06	ability to install core board using friction fit method

Sub-task

C-10.02 Seals penetrations.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

C-10.02.01	knowledge of types of penetrations such as pipes, ducts and electrical wiring
C-10.02.02	knowledge of materials used to seal penetrations such as fire caulk and mineral wool
C-10.02.03	knowledge of clearances required for expansion
C-10.02.04	knowledge of types of fire stop caulking such as liquid and workable

- C-10.02.05 ability to locate and seal around metal sleeves by caulking inside and outside
- C-10.02.06 ability to line openings with fire-rated drywall

Sub-task

C-10.03 Encloses beams, columns and staircases to achieve desired fire rating.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

- C-10.03.01 knowledge of methods of installation with or without framing
- C-10.03.02 knowledge of components such as tracks, studs, fire-rated drywall, caulking and furring channels
- C-10.03.03 knowledge of sequence of assembly of enclosure
- C-10.03.04 ability to use fasteners such as screws, tie wire and pins
- C-10.03.05 ability to cut and fit framing and drywall

Trends	There is an increase in the use of rain screen systems for moisture drainage. New products are being introduced in the market to create the rain screen (e.g. plastic stucco wire with built-in rain screen). Pre-manufactured panels are used more frequently. The use of cementitious panels and planks for exterior finish is increasing.
Related Components (including, but not limited to)	Studs, tracks, insulation, expandable foam, sheathing material, foil tape, sheeting tape, membranes, fasteners, lath, sealants, pre-manufactured panels, flashings.
Tools and Equipment	Hand tools, power tools, layout and measuring tools, PPE and safety equipment, scaffolding and access equipment.

Task 11

Installs insulation and membranes.

Context	Membranes are installed to create a barrier against vapour, air and water. In an exterior system, insulation is primarily used to stop thermal transfer. Together, they create a continuous and uniform building envelope.
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Sub-task

D-11.01 Installs thermal insulation.

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

D-11.01.01	knowledge of types of thermal insulation such as fibreglass, mineral fibre, rigid, semi-rigid and batts
D-11.01.02	knowledge of insulating values such as R-20 and R-12
D-11.01.03	knowledge of installation procedures
D-11.01.04	knowledge of sealants such as thermal sealant, expandable foam, sheeting tape and foil tape

D-11.01.05	knowledge of PPE
D-11.01.06	knowledge of WHMIS
D-11.01.07	knowledge of attachment methods such as adhesives, friction fit and mechanical fasteners
D-11.01.08	ability to measure and cut insulation
D-11.01.09	ability to lay out insulation panels
D-11.01.10	ability to place and attach insulation
D-11.01.11	ability to use knives and saws

Sub-task

D-11.02 **Installs interior/exterior membranes.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

D-11.02.01	knowledge of types of membranes such as polyethylene film vapour barrier, rubberized non-permeable membrane, aluminium foil and building wrap
D-11.02.02	knowledge of installation procedures
D-11.02.03	knowledge of WHMIS
D-11.02.04	knowledge of attachment methods such as using adhesives and mechanical fasteners
D-11.02.05	knowledge of sealants such as caulking, tape and expandable foam
D-11.02.06	knowledge of manufacturers' specifications
D-11.02.07	ability to measure and cut membranes
D-11.02.08	ability to lay out membranes
D-11.02.09	ability to place and attach membranes
D-11.02.10	ability to use knives, hammers, tackers and staplers

Task 12**Prepares surface for exterior finishes.**

Context Lathers create an appropriate substrate for the attachment of various finishes.

Sub-task**D-12.01 Installs exterior sheathing.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

D-12.01.01 knowledge of types of exterior sheathing material such as glass mat covered gypsum panels, exterior gypsum panels, cement board panels and plywood

D-12.01.02 knowledge of installation procedures

D-12.01.03 knowledge of types of fasteners such as screws, nails and pins

D-12.01.04 knowledge of types of sealants such as spray foam, sheeting tape and caulking

D-12.01.05 knowledge of manufacturers' specifications

D-12.01.06 ability to measure, cut and shape exterior sheathing

D-12.01.07 ability to lay out, place and fasten exterior sheathing

D-12.01.08 ability to select and use tools such as screw guns, nail guns and cement board cutters

Sub-task**D-12.02 Installs lath.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	no	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

D-12.02.01 knowledge of types of lath such as expanded metal, rib and welded stucco wire

D-12.02.02 knowledge of installation procedures

D-12.02.03 knowledge of fastener spacing

D-12.02.04	knowledge of types of fasteners such as screws, nails and pins
D-12.02.05	knowledge of expansion joints and plaster stops
D-12.02.06	knowledge of manufacturers' specifications
D-12.02.07	knowledge of flashings
D-12.02.08	ability to measure, cut and shape lath and stops
D-12.02.09	ability to lay out, place and fasten lath
D-12.02.10	ability to select and use tools such as screw guns, hammers and nippers
D-12.02.11	ability to install plaster stops, beads and expansion joints
D-12.02.12	ability to cut, shape and install flashings

Sub-task

D-12.03 **Installs Exterior Insulation Finish System (EIFS). (NOT COMMON CORE)**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
no	yes	NV	NV	yes	no	yes	no	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

D-12.03.01	knowledge of installation procedures
D-12.03.02	knowledge of fastener spacing
D-12.03.03	knowledge of types of fasteners such as washers, screws and pins
D-12.03.04	knowledge of expansion joints
D-12.03.05	knowledge of flashings
D-12.03.06	ability to follow manufacturers' specifications
D-12.03.07	ability to measure, cut and shape insulation
D-12.03.08	ability to lay out, place and fasten insulation
D-12.03.09	ability to select and use tools such as screw guns, powder-actuated tools and trowels
D-12.03.10	ability to cut, shape and install flashings
D-12.03.11	ability to create expansion joints and edge details
D-12.03.12	ability to create a rain screen system

Task 13**Installs exterior finishes.**

Context Exterior finishes are installed to protect the building from environmental conditions while adhering to the architects' and engineers' designs.

Sub-task**D-13.01 Fabricates panels.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	yes	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

D-13.01.01 knowledge of types of materials used such as steel studs, tracks and sheathing

D-13.01.02 knowledge of types of fasteners such as screws, nails, pins and clips

D-13.01.03 knowledge of various finishes

D-13.01.04 knowledge of building's substrate

D-13.01.05 ability to use fabrication tools such as chop saws, impact drills and plasma cutters

D-13.01.06 ability to measure, cut, square and shape materials

D-13.01.07 ability to follow assembly procedures

D-13.01.08 ability to apply sheathing

Sub-task**D-13.02 Installs pre-manufactured panels.**

<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>
yes	yes	NV	NV	yes	yes	yes	no	yes	yes	ND	NV	ND

Supporting Knowledge & Abilities

D-13.02.01 knowledge of installation procedures

D-13.02.02 knowledge of types of fasteners such as screws, nails, pins and clips

D-13.02.03 knowledge of joint tolerances

D-13.02.04 knowledge of various finishes

- D-13.02.05 knowledge of building's substrate
- D-13.02.06 ability to use installation tools such as impact drills and hammer drills
- D-13.02.07 ability to modify panels as a result of site conditions
- D-13.02.08 ability to plan sequence and placement of panels
- D-13.02.09 ability to install temporary braces

APPENDICES

Hand Tools

adjustable wrenches	machine taping tools
aviation snips	magnetic punches
bead clinchers	mixing paddles
bolt cutters	mud pans
broad knives	multi-tip screwdrivers
caulking guns	nippers
channel cutters	pliers
circle cutters	pole sanders
cold chisels	pop rivet guns
deck punches	putty knives
dry line/T-bar clips	rasps
drywall lifters	rubber mallets
drywall saws	sandpapers
eye screw poles	screw pullers
files	square (T, combination, tri (speed square))
hack saws	staplers/hammer tackers
hammers	stud crimpers
hand sanders	tape and mud holders
hawk and trowels	T-bar grid punches
hole punches	trowels
keyhole saws	utility knives
lather's hatchets	wrecking bars
locking C-clamps	

Power Tools and Equipment

abrasive chop saws	hammer drills
angle grinders	heat guns
band saws	hot knives
circular saws	hot wire tables
compound mitre saws	impact drills
compressors	jig saws
compressor hoses	powder-actuated tools
cordless drills	power nailers/fasteners
drywall routers	power shears (snips)
drywall screw guns	power staplers
electric drills	reciprocating saws
electric shears	routers
gas-actuated tools	table saws
gas powered cut-off saws	

Layout and Measuring Devices

architect scales	magnetic hand levels
calculators	moisture meters
centre punches	pencils and markers
chalk lines	plumb bobs
compasses	scratch awls
dry lines	spirit levels
framing squares	straight edges
laser alignment equipment	tape measures (25 ft. and 100 ft.)
laser levels	T-bevels
laser measure tools	water levels

Material Handling and Site Maintenance Equipment

brooms	sawhorses
drywall carts	shop vacuums
extension cords	shovels
floor scrapers	squeegees
generators	suction cups
lockup boxes	temporary heaters
pails	wheel barrels
pallet jacks	wheeled dollies
portable fans	wheeled garbage boxes
portable lights	

Scaffolding and Access Equipment

aluminium benches	portable scaffolds
aluminium planks	rolling scaffolds
boom lifts	scissor-lifts
extendable boom lift	stationary scaffolds
ladder jacks	stilts
ladders	swing stages

Personal Protective Equipment and Safety Equipment

coveralls	hard hats
ear plugs and muffs	knee pads
evacuation horns	masks (particle, vapour)
eye wash facilities	respirators and cartridges
face shields	safety glasses
fall arrest and restraint equipment	safety vests
fire extinguishers	steel toe boots
first aid equipment	warning signs
gloves	warning tapes
goggles	

barriers	a component that prevents movement or access of fire, smoke, heat/cold, moisture, sound, radiation, dust, light, people and animals
bulkhead	an assembly that forms a change in the ceiling elevation and that can be decorative or functional
carrying channel	a main support member for other components
corner bead	a trim to guide a trowel to form a uniform corner; it can be made from metal, vinyl or paper
fireproofing	application of a fire-resistant material directly or indirectly to protect structural members from fire damage
furring channel (also known as U-bar, hat track, strapping)	framing member used to space lath or gypsum board from any surface member over which it is applied
gas-actuated tools	tools that are powered by gas and ignited by electrical charge
hanger	vertical tensile member that carries the steel framework of a suspended ceiling
jig	manufactured or job-built assembly used to guide tools or hold materials for repetitive operations
lath	plastic or metal backing for plaster
lead radiation shielding	material used to stop radiation and reduce sound exposure
load-bearing members	building components that support both live and dead loads
membrane	continuous barrier used to resist the flow of vapour, air and water
non-suspended ceiling	a ceiling finish applied directly to a solid unsuspended substrate
pedestal	main support component of an access flooring system
rain screen	cavity between substrate and cladding to allow water to escape

security mesh	steel mesh used to prevent unauthorized access
shaft wall	assembly used to protect stairwells, ducts and elevator shafts from fire
sheathing	sheet material that covers the exterior of a building's frame
soffit	exterior horizontal ceiling
substrate	underlying surface
suspended ceiling	a ceiling that is supported intermediately from building structure such as concrete slab and steel decking
template	temporary pattern created to assist in fabrication

EIFS	Exterior Insulation Finish System
LEED	Leadership in Energy and Environmental Design
MDF	Medium density fibre
MSDS	Material Safety Data Sheet
OH&S	Occupational Health and Safety
PPE	Personal Protective Equipment
WHMIS	Workplace Hazardous Materials Information System

APPENDIX D

BLOCK AND TASK WEIGHTING

BLOCK A OCCUPATIONAL SKILLS

	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	National Average
%	10	15	NV	NV	20	15	10	20	15	16	ND	NV	ND	15%

Task 1 Maintains tools and equipment.

	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	15%
%	10	24	NV	NV	30	10	20	10	10	10	ND	NV	ND	

Task 2 Organizes work.

	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	38%
%	40	38	NV	NV	35	25	40	50	30	45	ND	NV	ND	

Task 3 Performs routine trade activities.

	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	47%
%	50	38	NV	NV	35	65	40	40	60	45	ND	NV	ND	

BLOCK B FRAMING

	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	National Average
%	40	30	NV	NV	33	30	25	30	35	30	ND	NV	ND	32%

Task 4 Erects non load-bearing steel assemblies.

	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	56%
%	80	45	NV	NV	55	60	40	50	60	57	ND	NV	ND	

Task 5 Erects load-bearing steel assemblies.

	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	44%
%	20	55	NV	NV	45	40	60	50	40	43	ND	NV	ND	

BLOCK C INTERIOR SYSTEMS

	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	National Average
%	35	30	NV	NV	33	35	50	40	35	30	ND	NV	ND	36%

Task 6 Installs wall systems and components.

	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	37%
%	35	30	NV	NV	30	40	25	54	50	35	ND	NV	ND	

Task 7 Installs ceiling systems.

	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	28%
%	35	30	NV	NV	35	30	15	25	20	35	ND	NV	ND	

Task 8 Installs access flooring systems.

	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	8%
%	5	10	NV	NV	5	5	20	5	5	5	ND	NV	ND	

Task 9 Installs sound barriers and lead radiation shielding.

	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	11%
%	10	15	NV	NV	5	10	20	8	10	10	ND	NV	ND	

Task 10 Installs smoke and fire barriers.

	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	16%
%	15	15	NV	NV	25	15	20	8	15	15	ND	NV	ND	

BLOCK D EXTERIOR SYSTEMS

	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	National Average
%	15	25	NV	NV	14	20	15	10	15	24	ND	NV	ND	17%

Task 11 Installs insulation and membranes.

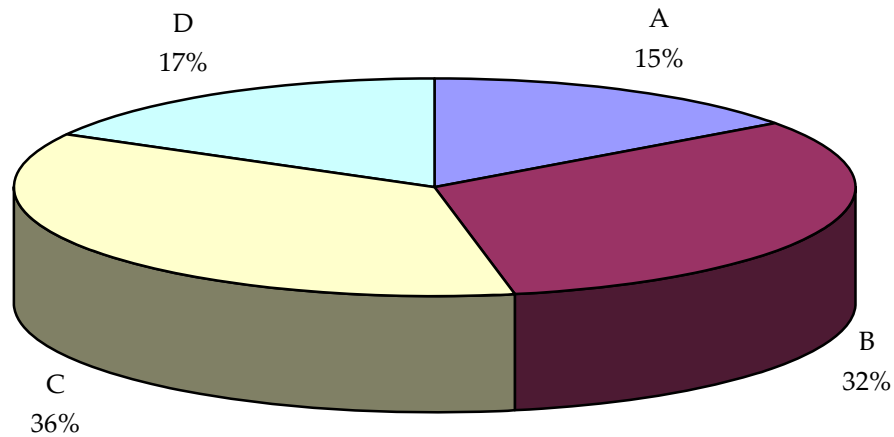
	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	48%
%	50	40	NV	NV	35	55	35	80	35	50	ND	NV	ND	

Task 12 Prepares surface for exterior finishes.

	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	
%	10	35	NV	NV	45	30	40	20	40	30	ND	NV	ND	31%

Task 13 Installs exterior finishes.

	<u>NL</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YT</u>	<u>NU</u>	
%	40	25	NV	NV	20	15	25	0	25	20	ND	NV	ND	21%



TITLES OF BLOCKS

BLOCK A	Occupational Skills	BLOCK C	Interior Systems
BLOCK B	Framing	BLOCK D	Exterior Systems

*Average percentage of the total number of questions on an interprovincial examination, assigned to assess each block of the analysis, as derived from the collective input from workers within the occupation from all areas of Canada. Interprovincial examinations typically have from 100 to 150 multiple-choice questions.

APPENDIX F

TASK PROFILE CHART – Lather (Interior Systems Mechanic)

BLOCKS	TASKS	SUB-TASKS					
A - OCCUPATIONAL SKILLS	1. Maintains tools and equipment.	1.01 Maintains hand tools.	1.02 Maintains power tools.	1.03 Maintains powder-actuated tools.	1.04 Maintains gas-actuated tools.	1.05 Maintains pneumatic tools.	
		1.06 Maintains layout and measuring devices.					
		2. Organizes work.	2.01 Communicates with others.	2.02 Uses documentation.	2.03 Uses blueprints and drawings.	2.04 Plans daily tasks.	2.05 Estimates materials and supplies.
	2.06 Maintains safe work environment.						
	3. Performs routine trade activities.		3.01 Performs measurements.	3.02 Uses scaffolding and access equipment.	3.03 Uses jigs and templates.	3.04 Prepares work site.	3.05 Handles materials, supplies and products.
		3.06 Lays out work.	3.07 Applies sealants and gaskets.	3.08 Uses personal protective equipment (PPE) and safety equipment.			
		B - FRAMING	4. Erects non load-bearing steel assemblies.	4.01 Frames non load-bearing walls.	4.02 Frames spanned ceilings.	4.03 Frames suspended drywall ceilings.	4.04 Frames non load-bearing bulkheads.

BLOCKS

TASKS

SUB-TASKS

C - INTERIOR SYSTEMS

		4.06 Installs backing.				
	5. Erects load-bearing steel assemblies.	5.01 Frames load-bearing walls.	5.02 Frames exterior ceilings and soffits.	5.03 Frames load-bearing bulkheads.	5.04 Frames load-bearing floors.	5.05 Frames load-bearing roofs.
	6. Installs wall systems and components.	6.01 Installs demountable walls.	6.02 Installs drywall.	6.03 Finishes drywall. (NOT COMMON CORE)	6.04 Installs drywall trims and mouldings.	6.05 Installs security mesh.
		6.06 Installs access panels.				
	7. Installs ceiling systems.	7.01 Installs suspended component ceilings.	7.02 Installs non-suspended ceilings.			
	8. Installs access flooring systems.	8.01 Installs pedestals and supporting hardware.	8.02 Installs flooring panels.			
	9. Installs sound barriers and lead radiation shielding.	9.01 Installs sound barriers.	9.02 Installs lead radiation shielding.			
	10. Installs smoke and fire barriers.	10.01 Installs shaft wall systems.	10.02 Seals penetrations.	10.03 Encloses beams, columns and staircases to achieve desired fire rating.		

BLOCKS

D - EXTERIOR SYSTEMS

TASKS

11. Installs insulation and membranes.

12. Prepares surface for exterior finishes.

13. Installs exterior finishes.

SUB-TASKS

11.01 Installs thermal insulation.

11.02 Installs interior/exterior membranes.

12.01 Installs exterior sheathing.

12.02 Installs lath.

12.03 Installs Exterior Insulation Finish System (EIFS). (NOT COMMON CORE)

13.01 Fabricates panels.

13.02 Installs pre-manufactured panels.