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## ABSTRACT

This analysis covers tasks performed by a lather, an occupational title some provinces and territories of Canada have also identified as drywall and acoustical mechanic; interior systems installer; and interior systems mechanic. A guide to analysis discusses development, structure, and validation method; scope of the occupation; trends; and safety. To facilitate understanding the nature of the occupation, work performed is divided into the following categories: (1) blocks, the largest division in the analysis that reflects a distinct operation relevant to the occupation; (2) tasks, the distinct activities that in combination make up the logical and necessary steps the worker is required to perform to complete a specific assignment in a block; and (3) sub-tasks, the smallest divisions into which it is practical to subdivide any work activity and that in combination fully describe all duties constituting a task. Other components of a task are trends, related components, tools and equipment, and supporting knowledge and abilities. Each sub-task is accompanied by results of a validation by all provinces/territories. The 4 blocks, which include 13 tasks, are occupation skills; framing; interior systems; and exterior systems. Appendixes include a list of tools and equipment; glossary; blocks and tasks weighting; and task profile chart. (YLB)

# Occupational Analyses Series

## Lather (Interior Systems Mechanic)

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**2002**

Policy and Apprenticeship Division

Division des politiques et de l'apprentissage

Human Resources  
Partnerships Directorate

Direction des partenariats  
en ressources humaines

Disponible en français sous le titre :

Latteur/latteuse (spécialiste de systèmes intérieurs)

*The Canadian Council of Directors of Apprenticeship (CCDA) recognizes this occupational analysis as the national standard for the occupation of lather (interior systems mechanic).*

## ACKNOWLEDGEMENTS

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This analysis was prepared by the Human Resources Partnerships Directorate of HRDC. The overall planning and coordination of the development of this analysis were undertaken by staff members of HRDC's Policy and Apprenticeship Division.

## **OTHER RELATED OCCUPATIONAL TITLES**

This analysis covers tasks performed by a lather (interior systems mechanic) whose occupational title has been identified by some provinces and territories of Canada under the following names:

Drywall and acoustical mechanic  
Interior systems installer  
Interior systems mechanic

## LIST OF PUBLISHED OCCUPATIONAL ANALYSES \*

TITLE	NOC** Code
<b>Appliance Service Technician (1997)</b>	7332
Aquaculture Technician (1977)	2221
Arts Administrator (1989)	0114
<b>Automotive Painter (1995)</b>	7322
<b>Automotive Service Technician (1998)</b>	7321
Automotive Technician - Automatic Transmission (1990)	7321
Automotive Technician - Electrical/Electronics (1992)	7321
Automotive Technician - Engine Repair and Fuel Systems (1989)	7321
Automotive Technician - Front-End (1989)	7321
Automotive Technician - Manual Transmission, Driveline and Brakes (1990)	7321
Aviation Machinist (1994)	7231
<b>Baker (1997)</b>	6252
Blaster (Surface) (1987)	7372
<b>Boilermaker (1994)</b>	7262
<b>Bricklayer (2000)</b>	7281
<b>Cabinetmaker (2000)</b>	7272
<b>Carpenter (1998)</b>	7271
<b>Cement Finisher (1995)</b>	7282
<b>Construction Electrician (1994)</b>	7241
<b>Cook (1997)</b>	6242
<b>Electrical Rewind Mechanic (1999)</b>	7333
<b>Electronics Technician (Consumer Products) (1997)</b>	2242
Electronics Technician Vol. I (1986) (Video Equipment)	2242
Electronics Technician Vol. II (1986) (Audio Equipment)	2242

?      **Red Seal analyses are indicated in bold**

\*\*      **National Occupational Classification**

Electronics Technician Vol. III (1986) (Computer Equipment)	2242
Electronics Technician Vol. IV (1986) (Office Equipment)	2242
Electronics Technician Vol. VI (1986) (Communication Equipment)	2242
Electronics Technician Vol. VII (1986) (Signaling Equipment)	2242
Electronics Technician Vol. VIII (1986) (Navigation Equipment)	2242
Electronics Technician Vol. IX (1986) (Video Game Equipment)	2242
Electronics Technician Vol. X (1987) (CADD Equipment)	2242
Electronics Technician Vol. XI (1987) (CAM Equipment)	2242
Electronics Technician Vol. XII (1987) (Robotics Equipment)	2242
Electronics Technician Vol. XIII (1987) (Biomedical and Laboratory Equipment)	2242
Electronics Technician Vol. XIV (1987) (Industrial Process-Control Equipment)	2243
<b>Farm Equipment Mechanic (2000)</b>	7312
<b>Floorcovering Installer (1997)</b>	7295
<b>Glazier (1994)</b>	7292
<b>Hairstylist (1997)</b>	6271
Heating (Gas and Oil) Servicer - Commercial and Industrial (1978)	7331
<b>Heavy Duty Equipment Mechanic (1998)</b>	7312
Heavy Equipment Operator (1983)	7421
<b>Industrial Electrician (1997)</b>	7242
<b>Industrial Instrument Mechanic (2000)</b>	2243
<b>Industrial Mechanic (Millwright) (1999)</b>	7311
<b>Insulator (Heat and Frost) (2000)</b>	7293
<b>Ironworker (Generalist) (1993)</b>	7264
<b>Lather (Interior Systems Mechanic) (2002)</b>	7284

Logistics (1992)	0713
<b>Machinist (1998)</b>	7231
Major Electrical Appliance Repairer (1984)	7332
<b>Mobile Crane Operator (1997)</b>	7371
<b>Motorcycle Mechanic (1995)</b>	7334
<b>Motor Vehicle Body Repairer (Metal and Paint) (1997)</b>	7322
New Home Builder and Residential Renovation Contractor (1992)	0712
<b>Oil Burner Mechanic (1997)</b>	7331
<b>Painter and Decorator (2000)</b>	7294
<b>Partsperson (1995)</b>	1472
<b>Plumber (1996)</b>	7251
Power Engineer (1997)	7351
<b>Powerline Technician (1996)</b>	7244
<b>Recreation Vehicle Mechanic (2000)</b>	7383
<b>Refrigeration and Air Conditioning Mechanic (1997)</b>	7313
<b>Roofer (1997)</b>	7291
<b>Sheet Metal Worker (1997)</b>	7261
<b>Sprinkler System Installer (1995)</b>	7252
<b>Steamfitter-Pipefitter (1996)</b>	7252
<b>Steel Fabricator (Fitter) (1994)</b>	7263
<b>Tool and Die Maker (1997)</b>	7232
<b>Truck-Trailer Repairer (1994)</b>	7321
<b>Truck and Transport Mechanic (2000)</b>	7321
<b>Welder (1996)</b>	7265

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## FOREWORD

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

The Occupational Analysis Program has the following objectives:

- to identify and group the tasks performed by skilled workers in particular occupations;
- to identify those tasks that are performed by skilled workers in every province and territory;
- to develop instruments for use in the preparation of interprovincial standards "Red Seal" examinations and curricula for training leading to the certification of skilled workers;
- to facilitate the mobility, in Canada, of trainees and skilled workers;
- to supply employers and employees, and their associations, industries, training institutions and governments with analyses of the tasks performed in particular occupations.

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## **GUIDE TO ANALYSIS**

## DEVELOPMENT OF ANALYSIS

A draft analysis is developed by a knowledgeable consultant who, with the assistance of a committee of industry experts in the field, identifies all the tasks performed in the occupation.

The draft is then assigned to occupational analysts at Human Resources Development Canada for translation and then returned to the consultant for review to ensure conformity with the nationally approved format.

The consultant will then forward a copy of this analysis to provincial/territorial authorities for validation by specialists in the field. Their recommendations are assessed and incorporated into the final draft which also includes the identification of the common core tasks performed in the occupation.

The occupational analysis is published in both official languages.

## STRUCTURE OF ANALYSIS

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

- A. **BLOCK** – is the largest division within the analysis and reflects a distinct operation relevant to the occupation.
- B. **TASK** – is the distinct activity that, combined with others, makes up the logical and necessary steps the worker is required to perform to complete a specific assignment within a “BLOCK”.
- C. **SUB-TASK** – is the smallest division into which it is practical to subdivide any work activity and, combined with others, fully describes all duties constituting a “TASK”.

### Supporting Knowledge & Abilities

The elements of skill and knowledge that an individual must acquire to adequately perform the task are identified under this heading.

### Trends

Any shifts or changes in technology that affect the block are identified under this heading.

### Related Components

All components of a specified task being undertaken by the lather (interior systems mechanic) are identified under this heading.

### Tools and Equipment

All tools and equipment necessary for the lather (interior systems mechanic) to complete a task are identified under this heading.

## VALIDATION METHOD

At the request of the Canadian Council of Directors of Apprenticeship (CCDA), the Standardization Sub-Committee developed a method for validating the Red Seal national occupational analyses.

A draft of the analysis is sent to all provinces/territories for validation. Each jurisdiction rates the sub-tasks and applies percentage ratings to blocks and tasks. This method for the validation of the national occupational analysis identifies common core tasks across Canada for a specific occupation. This feature facilitates the weighting of the Interprovincial Red Seal examinations.

### DEFINITIONS

- YES:** the sub-task is performed by workers in the occupation in a specific jurisdiction.
- NO:** the sub-task is not performed by workers in the occupation in a specific jurisdiction.
- BLOCK %:** the average number of questions (items), derived from the collective decision made by workers within the occupation from all areas of Canada, that will be placed on an interprovincial examination to assess each block of the analysis.
- TASK %:** the average number of questions (items), derived from the collective decision made by workers within the occupation from all areas of Canada, that will be placed on an interprovincial examination to assess each task of the analysis.
- NV:** Not Validated by a province/territory.
- ND:** Not Designated in a province/territory.

### PROVINCIAL/TERRITORIAL ABBREVIATIONS

- NF:** 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  
**YK:** Yukon  
**NU:** Nunavut

### COMMON CORE

The criteria for determining common core depend on the performance of sub-tasks. If 70% of the responding jurisdictions (excluding NVs and NDs) perform a sub-task, it shall be considered common core.

Interprovincial Red Seal examinations are based on the common core identified through this validation process. This process identifies what will be assessed through the interprovincial examination.

### **BLOCKS AND TASKS WEIGHTING (APPENDIX “B”)**

This appendix represents the block and task percentages as submitted by each jurisdiction.

Each jurisdiction, with the use of a provincial/territorial occupational advisory committee, validates the content, places percentages on blocks and tasks, and indicates whether or not the sub-tasks are performed by the skilled workers within the occupation. The results of this exercise are submitted to the consultant who then analyzes the data and develops this appendix which provides the individual jurisdictional validation results as well as the national averages of all responses.

### **PIE CHART (APPENDIX “C”)**

The graph depicts the national percentages assigned to blocks in the analysis.

## **SCOPE OF THE LATHER (INTERIOR SYSTEMS MECHANIC) OCCUPATION**

The title "Lather (Interior Systems Mechanic)" describes a person who, because of his or her knowledge, training, and abilities, is capable of installing ceiling systems, demountable walls, access flooring, partitions, soundproofing, metal lath, drywall, exterior prefabricated wall panels, lead shielding, and interior/exterior metal wall studs in commercial, residential and institutional buildings.

Lathers (Interior Systems Mechanics) have skills and experience in measuring, cutting, and installing a wide variety of materials. To perform their duties properly, lathers have to co-ordinate their work with other trades at the worksite.

Some lathers work for years on a single site, such as an office complex, performing similar tasks constantly. Others are employed by general contractors or subcontractors in firms such as lath and plastering or interior systems, or they may be self-employed as sub-contractors. Workers in this occupation are often unionized, in which case they are hired by employers through the union hiring hall.

The duties associated with this occupation may overlap those of carpenters, sheet metal workers, and drywall tapers.



## OCCUPATIONAL OBSERVATIONS

The construction industry, like many other sectors of the economy, is experiencing new directions and rapid changes, due to technological innovations that prevail today.

Lathers (interior systems mechanics) along with working with new materials and methods, now find themselves dealing with higher fire and sound ratings for new construction. Similarly, steel stud construction – once limited to industrial construction – is being used in residential construction, thus providing a jurisdictional challenge for the occupation.

Basic computer skills are becoming a necessary occupational skill. Computerized plan design, paperless plans and other computer applications are making computer skills essential.

The occupation has evolved beyond its original focus on plaster lath work to encompassing the construction of metal stud walls, placing prefabricated panels, constructing a variety of ceilings and floors, and installing drywall. Such changes have led to some confusion regarding the occupational title, given that its practitioners do so much more than place laths. Since they work on exteriors, the sub-title “interior systems mechanics” also does not adequately describe the full scope of their occupation.

Like many construction occupations, the lather occupation is suffering from an ageing workforce, with many practitioners approaching retirement age, and is attracting fewer new entrants to replace them.

Training and retraining is a major issue within the occupation. Pre-apprenticeship training is rare in Canadian community colleges, although some larger unions do offer upgrading for their members. Since block release training is equally rare, many practitioners have not served an apprenticeship in the field and thus do not have their Red Seal.

## **SAFETY**

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 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 working environment.

It is imperative to apply and be familiar with the Occupational Health and Safety Act and Regulations. As well, it's essential to determine workplace hazards and take measures to protect oneself, co-workers, the public, and the environment.

As safety education is an integral part of training in all jurisdictions, personal safety practices are not recorded in this document. However, the technical safety aspects relating to each task and sub-task are included throughout this analysis.

## ANALYSIS

**BLOCK A**  
**OCCUPATION SKILLS**

*Trends: New methods, tools, and materials are being introduced into the occupation on an ongoing basis. The use of computers has introduced electronic drawings, specifications, and contract documents to the occupation.*

**Task 1      Interprets occupational documentation.**

*Related Components:*      Blueprints, specifications, codebooks, manufacturers' specifications.

*Tools and Equipment:*      Architectural scales, calculator, computer.

**Sub-task**

**1.01      Interprets blueprints and specifications.**

**Supporting Knowledge & Abilities**

<u>NF</u> ND	<u>NS</u> yes	<u>PE</u> yes	<u>NB</u> ND	<u>QC</u> yes	<u>ON</u> yes	<u>MB</u> yes	<u>SK</u> yes	<u>AB</u> yes	<u>BC</u> yes	<u>NT</u> ND	<u>YK</u> ND	<u>NU</u> ND
							1.01.01					knowledge of blueprint sections and types such as architectural, mechanical, electrical, etc.
							1.01.02					knowledge of specification divisions
							1.01.03					knowledge of conversion calculations
							1.01.04					knowledge of specification addenda and change orders
							1.01.05					ability to analyze blueprints
							1.01.06					ability to find related information in specifications, addenda, and change orders
							1.01.07					ability to calculate distances and dimensions

**Sub-task**

**1.02 Interprets codes and regulations.**

**Supporting Knowledge & Abilities**

<u>NF</u> ND	<u>NS</u> yes	<u>PE</u> yes	<u>NB</u> ND	<u>QC</u> yes	<u>ON</u> yes	<u>MB</u> yes	<u>SK</u> yes	<u>AB</u> yes	<u>BC</u> yes	<u>NT</u> ND	<u>YK</u> ND	<u>NU</u> ND
-----------------	------------------	------------------	-----------------	------------------	------------------	------------------	------------------	------------------	------------------	-----------------	-----------------	-----------------

1.02.01 knowledge of federal, provincial, and municipal building codes

1.02.02 knowledge of quality assurance standards such as the Underwriters Laboratories of Canada (ULC) handbook and Canadian Standards Association (CSA) codes

1.02.03 knowledge of fire-rating and sound-rating systems

1.02.04 ability to apply codes and regulations

**Sub-task**

**1.03 Interprets material documentation.**

**Supporting Knowledge & Abilities**

<u>NF</u> ND	<u>NS</u> yes	<u>PE</u> yes	<u>NB</u> ND	<u>QC</u> yes	<u>ON</u> yes	<u>MB</u> yes	<u>SK</u> yes	<u>AB</u> yes	<u>BC</u> yes	<u>NT</u> ND	<u>YK</u> ND	<u>NU</u> ND
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1.03.01 knowledge of hazardous material specifications (WHMIS)

1.03.02 knowledge of manufacturers' documents and specifications

1.03.03 ability to follow manufacturers' instructions

1.03.04 ability to interpret Material Safety Data Sheets (MSDS)

**Task 2 Organizes work.**

*Related Components:*

Materials list, dust barriers, temporary railings, hoarding.

*Tools and Equipment:*

Gang boxes, lunch table, blueprint table, broom, shovel, garbage bins, hazardous waste containers.

**Sub-task**

**2.01 Prepares work site.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND
					2.01.01							knowledge of light demolition techniques and waste removal
					2.01.02							knowledge of work impacts on surrounding areas
					2.01.03							knowledge of dust barriers, hoarding, and guard-rail requirements
					2.01.04							ability to assess site readiness
					2.01.05							ability to pre-clean work site
					2.01.06							ability to install dust barriers, hoarding, and guard rails
					2.01.07							ability to remove obstructions

**Sub-task**

**2.02 Estimates materials and supplies.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND
					2.02.01							knowledge of required materials and supplies
					2.02.02							ability to estimate materials and supplies needed as the job progresses

**Sub-task**

**2.03 Manages time.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

- 2.03.01 knowledge of work required
- 2.03.02 knowledge of sequence of work
- 2.03.03 ability to estimate time to complete specific tasks
- 2.03.04 ability to plan ahead
- 2.03.05 ability to use time productively

**Sub-task**

**2.04 Organizes materials and supplies.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

- 2.04.01 knowledge of proper storage of materials and supplies on site to ensure ease of use
- 2.04.02 knowledge of the sequence in which materials are to be used
- 2.04.03 knowledge of methods for securing and protecting materials
- 2.04.04 ability to place materials on site
- 2.04.05 ability to protect and secure materials

**Sub-task**

**2.05 Co-ordinates work with others.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

2.05.01	knowledge of sequence of work
2.05.02	knowledge of the requirements of other trades on site
2.05.03	knowledge of communication techniques
2.05.04	ability to communicate and co-operate with others

**Task 3            Lays out work.**

*Related Components:*            Blueprints, specifications, product information, access floors, walls, ceilings, roofs.

*Tools and Equipment:*            Chalk line, pencils, paint, measuring tapes, laser level, squares.

**Sub-task**

**3.01    Establishes grid line/starting point.            Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

3.01.01	knowledge of building configuration
3.01.02	knowledge of layout procedures
3.01.03	ability to identify common starting point
3.01.04	ability to mark or chalk gridlines
3.01.05	ability to check gridlines for square

**Sub-task**

**3.02    Transfers information from blueprint to work site.            Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND



3.02.01	knowledge of construction techniques
3.02.02	knowledge of installation techniques for each system
3.02.03	knowledge of installation sequence for each system
3.02.04	knowledge of work requirements of other trades on site
3.02.05	knowledge of system's intended use
3.02.06	ability to measure and chalk lines
3.02.07	ability to layout corners, angles, and radii

**Task 4 Uses and maintains tools and equipment.**

*Related Components:* None.

*Tools and Equipment:* See Appendix A.

**Sub-task**

**4.01 Uses hand tools.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

4.01.01	knowledge of types and uses of hand tools
4.01.02	knowledge of components of hand tools
4.01.03	knowledge of hand tool safety

**Supporting Knowledge & Abilities**

4.01.04	ability to use sealing tools
4.01.05	ability to use measuring and layout tools
4.01.06	ability to use cutting tools
4.01.07	ability to use fastening tools
4.01.08	ability to use dismantling tools

- 4.01.09 ability to use sanding and taping tools
- 4.01.10 ability to use door tools
- 4.01.11 ability to use hand levels

**Sub-task**

**4.02 Uses power tools.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND
					4.02.01							
						4.02.02						
						4.02.03						
						4.02.04						
						4.02.05						
						4.02.06						
						4.02.07						
						4.02.08						
						4.02.09						

**Sub-task**

**4.03 Uses laser-levelling equipment.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND
					4.03.01							
						4.03.02						
						4.03.03						

- 4.03.04 ability to use features of a laser level
- 4.03.05 ability to plumb and level with laser equipment
- 4.03.06 ability to use different types of laser equipment

**Sub-task**

**4.04 Uses powder-actuated tools. Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

- 4.04.01 knowledge of types and uses of powder-actuated tools
- 4.04.02 knowledge of components of powder-actuated tools
- 4.04.03 knowledge of safety features of powder-actuated tools
- 4.04.04 ability to use different types of powder-actuated tools
- 4.04.05 ability to differentiate between cartridge loads
- 4.04.06 ability to differentiate between types of fasteners

**Sub-task**

**4.05 Uses scaffolding and access equipment. Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

- 4.05.01 knowledge of types and uses of scaffolding and access equipment
- 4.05.02 knowledge of scaffolding and access equipment components
- 4.05.03 knowledge of safety procedures for using scaffolding and access equipment

- 4.05.04 ability to operate scissor-lifts and booms
- 4.05.05 ability to erect different types of scaffolding
- 4.05.06 ability to use a variety of ladders

**Sub-task**

**4.06 Maintains tools and equipment.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND
					4.06.01							knowledge of types of tools
					4.06.02							knowledge of manufacturers' recommended maintenance procedures
					4.06.03							ability to maintain hand tools and equipment
					4.06.04							ability to interpret manufacturers' manuals
					4.06.05							ability to maintain power tools
					4.06.06							ability to maintain powder-actuated tools
					4.06.07							ability to maintain access equipment such as scaffolds, ladders, and lifts

## BLOCK B

### FRAMING

*Trends: Increased use of steel studs in residential construction. Increased use of energy-efficient materials. Increased use of technological advances in levelling and measuring devices.*

#### Task 5 Erects non-load-bearing steel studs.

*Related Components:* Anchors, fasteners (framing screws, etc.), metal track, steel studs, furring bar, resilient bar, metal angle, window frames, door frames, access doors, backing materials.

*Tools and Equipment:* Standard tools, power tools (see Appendix A for details on both), chop saw, power shears, laser level, magnetic level.

#### Sub-task

##### 5.01 Frames walls and ceilings.

##### Supporting Knowledge & Abilities

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

5.01.01 knowledge of fire rating and sound rating procedures

5.01.02 knowledge of steel stud materials and properties

5.01.03 knowledge of framing techniques

5.01.04 knowledge of anchorage types and properties

5.01.05 knowledge of building codes and procedures

5.01.06 knowledge of substrate type and properties

5.01.07 ability to interpret wall legends and schedule

5.01.08 ability to frame openings and recesses

5.01.09 ability to install top and bottom track

5.01.10 ability to install steel studs

**Sub-task**

**5.02 Installs metal door and window frames.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND
							5.02.01					
							5.02.02					
							5.02.03					
							5.02.04					
							5.02.05					
							5.02.06					
							5.02.07					
							5.02.08					
							5.02.09					

**Sub-task**

**5.03 Installs access panels.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND
							5.03.01					
							5.03.02					
							5.03.03					
							5.03.04					

**Task 6 Erects load-bearing steel studs.**

*Related Components:*

Steel studs, steel track, bridging clips, strapping, joists, channels, gussets, metal trusses, fasteners, anchors.

*Tools and Equipment:*

Standard tools, power tools (see Appendix A for details on both), chop saw, power shears, laser level, magnetic level, powder-actuated tools, arc welder, mig welder.

**Sub-task**

**6.01 Frames roofs.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND
					6.01.01							
					6.01.02							
					6.01.03							
					6.01.04							
					6.01.05							
					6.01.06							
					6.01.07							
					6.01.08							
					6.01.09							
					6.01.10							

**Sub-task**

**6.02 Frames floors.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

- 6.02.01 knowledge of building code requirements specific to floors
- 6.02.02 knowledge of anchoring and fastening systems
- 6.02.03 knowledge of fire rating and sound rating procedures
- 6.02.04 knowledge of floor installation techniques
- 6.02.05 knowledge of types of steel studs
- 6.02.06 knowledge of general load-bearing limits
- 6.02.07 ability to locate and frame openings and recesses
- 6.02.08 ability to cut and install sill tracks
- 6.02.09 ability to cut and install bridging
- 6.02.10 ability to select anchorage and spacing



## BLOCK C

### INTERIOR SYSTEMS

*Trends:*            *Towards lighter weight materials, higher fire and sound ratings, denser drywall material, and more specialized material.*

**Task 7            Installs access flooring systems.**

*Related Components:*            Pedestals, channels, floor panels, grommets, continuity connectors, air diffusers.

*Tools and Equipment:*            Standard tools (see Appendix A), panel lifters, band saw, skill saw, drill, hole saw, caulking gun, laser level, screw gun.

**Sub-task**

**7.01    Installs pedestals.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

- 7.01.01            knowledge of types of pedestals
- 7.01.02            knowledge of pedestal securing techniques
- 7.01.03            knowledge of pedestal supporting and seismic protection techniques
- 7.01.04            knowledge of fire stop requirements
- 7.01.05            ability to assemble pedestals
- 7.01.06            ability to place and secure pedestals
- 7.01.07            ability to level pedestals

**Sub-task**

**7.02 Installs supporting hardware. Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

- 7.02.01 knowledge of types of supporting hardware
- 7.02.02 knowledge of floor grid installation techniques
- 7.02.03 knowledge of floor grid securing techniques
- 7.02.04 knowledge of perimeter moulding and finishing
- 7.02.05 ability to cut supporting channels
- 7.02.06 ability to place and secure supporting floor grids

**Sub-task**

**7.03 Installs flooring panels. Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

- 7.03.01 knowledge of types of floor panels
- 7.03.02 knowledge of floor panel installation techniques
- 7.03.03 ability to cut floor panels
- 7.03.04 ability to cut and finish cable access holes
- 7.03.05 ability to place and secure floor panels

**Task 8 Installs wall systems.**

*Related Components:*

Batt, semi-rigid, rigid and mineral fibre insulation, gypsum board, pre-finished drywall, cementitious board, fibre boards, fasteners, adhesives, caulking, demountable partition systems, framing/trim, extruded aluminium, proprietary shaft wall systems, security mesh, resilient bar, Z bar/channels.

*Tools and Equipment:*

Standard tools, power tools (see Appendix A for both), chop saw, power mitre saw, rubber mallet, system specific tools, metal file, hole saw, router, suction cups, respirator/mask, gloves, goggles, coveralls, safety equipment.

**Sub-task**

**8.01 Installs insulation.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

8.01.01 knowledge of types and properties of insulation

8.01.02 knowledge of fire rating and sound rating procedures and requirements

8.01.03 knowledge of insulation installation techniques

8.01.04 ability to install specified insulation

8.01.05 ability to interpret wall legends and schedules

8.01.06 ability to cut and place insulation

**Sub-task**

**8.02 Installs demountable walls.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

8.02.01 knowledge of types of demountable wall systems and components

8.02.02 knowledge of extruded aluminium framing components

**Supporting Knowledge & Abilities**

8.02.03 knowledge of panel installation techniques

8.02.04 knowledge of substrate type and characteristics and anchoring procedures

8.02.05 ability to cut and install extruded aluminium door/window frame components and/or tracks, terminations, etc.

8.02.06	ability to install glass and glazing beads
8.02.07	ability to install doors/transoms
8.02.08	ability to install pre-finished panels, trims, and mouldings
8.02.09	ability to install and level top/bottom track
8.02.10	ability to install steel studs and related components

**Sub-task**

**8.03 Installs drywall.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND
					8.03.01							
						8.03.02						
							8.03.03					
								8.03.04				
									8.03.05			
										8.03.06		
											8.03.07	

**Sub-task**

**8.04 Installs shaft walls.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

8.04.04	knowledge of anchoring and fastening procedures
8.04.05	ability to cut, level, and place J-tracks
8.04.06	ability to frame shaft wall with studs
8.04.07	ability to cut and install coreboard
8.04.08	ability to cut and install finish layers of coreboard
8.04.09	ability to select proper anchors and fasteners

**Sub-task**

**8.05 Installs security mesh.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND
					8.05.01							
					8.05.02							
					8.05.03							
					8.05.04							
					8.05.05							

**Task 9 Installs ceiling systems.**

*Related Components:* Grid systems, metal linear ceilings, integrated ceiling systems, hangers, hanger pins, sound isolators, hold-down clips, panel supports, tie wires, attaching hardware, supporting channels, perimeter moulding, drywall, acoustic tile, sound proofing, decorative panels, plaster, wood panels.

*Tools and Equipment:* Standard tools, power tools (see Appendix A for both), laser level, hammer drill.

**Sub-task**

**9.01 Installs suspended ceilings. Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND
					9.01.01							
						9.01.02						
						9.01.03						
						9.01.04						
						9.01.05						
						9.01.06						
						9.01.07						
						9.01.08						
						9.01.09						
						9.01.10						
						9.01.11						
						9.01.12						

**Sub-task**

**9.02 Installs non-suspended ceilings.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

- 9.02.01 knowledge of ceiling material
- 9.02.02 knowledge of ceiling fasteners and adhesives
- 9.02.03 ability to lay out ceiling patterns
- 9.02.04 ability to cut and install strapping and furring
- 9.02.05 ability to place and secure ceiling panels

**Sub-task**

**9.03 Installs dropped ceilings/bulkheads.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

- 9.03.01 knowledge of types of dropped ceilings/bulkheads
- 9.03.02 ability to place and secure dropped ceiling material

**Task 10 Installs sound barriers and lead shielding.**

*Related Components:* Lead sheeting, acoustical caulking and tape, batt and rigid insulation, resilient bar, sound board, glues and adhesives.

*Tools and Equipment:* Standard tools (see Appendix A), caulking gun.

**Sub-task**

**10.01 Installs sound barriers.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

- 10.01.01 knowledge of sound ratings and assemblies
- 10.01.02 knowledge of sound-rated products
- 10.01.03 knowledge of methods of sound rating
- 10.01.04 ability to install sound insulation
- 10.01.05 ability to install resilient bars and sound boards
- 10.01.06 ability to install acoustical caulking
- 10.01.07 ability to install pre-finished sound panels

**Sub-task**

**10.02 Installs lead shielding.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

- 10.02.01 knowledge of types and thickness of lead
- 10.02.02 knowledge of purposes of lead shielding
- 10.02.03 knowledge of lead installation techniques
- 10.02.04 knowledge of lead handling precautions
- 10.02.05 ability to install lead for X-ray and sound purposes
- 10.02.06 ability to measure and cut lead
- 10.02.07 ability to seal X-ray conductive perforations in lead panels



**Task 11 Finishes drywall.**

*Related Components:* Drywall tape, drywall compound, drywall trim, sandpaper.

*Tools and Equipment:* Trowels, knives, tape holder and/or dispenser, pole sander, hand sander, electric drill, mixer, sponges.

**Sub-task**

**11.01 Selects materials.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	no	yes	yes	yes	yes	no	ND	ND	ND

- 11.01.01 knowledge of types of filling compounds
- 11.01.02 knowledge of manufacturers' specifications
- 11.01.03 knowledge of types of drywall tape
- 11.01.04 ability to select the filler/substrate combination to suit site condition
- 11.01.05 ability to select tape for given application

**Sub-task**

**11.02 Applies filler and tape.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	no	yes	yes	yes	yes	no	ND	ND	ND

- 11.02.01 knowledge of drying and/or curing conditions
- 11.02.02 ability to mix the selected compound to suit site conditions
- 11.02.03 ability to embed tape
- 11.02.04 ability to apply compounds for rough coat
- 11.02.05 ability to apply compounds for finish coats
- 11.02.06 ability to apply and finish trim

**Sub-task**

**11.03 Performs finish sanding.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	no	yes	yes	yes	yes	no	ND	ND	ND

11.03.01	knowledge of abrasives
11.03.02	knowledge of sanding techniques
11.03.03	ability to sand joints
11.03.04	ability to identify deficiencies
11.03.05	ability to repair deficiencies

## BLOCK D

### EXTERIOR SYSTEMS

*Trends: Greater use of pre-manufactured components, rain screening, and new air/moisture barriers is becoming common.*

**Task 12 Installs membranes.**

*Related Components:* Plastic sheeting, foil, styrofoam, plastic wrap, building paper, exterior drywall, pre-engineered panels, plywood sheathing, cement board, rigid fibreglass, bituthane membrane.

*Tools and Equipment:* Standard tools (see Appendix A), knife, stapler, caulking gun, sheeting tape, duct tape.

**Sub-task**

**12.01 Installs interior membranes. Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

- 12.01.01 knowledge of types of interior membranes
- 12.01.02 knowledge of purposes of interior membranes and vapour/air barriers
- 12.01.03 knowledge of interior membrane installation techniques
- 12.01.04 ability to place and secure membranes

**Sub-task**

**12.02 Installs exterior membranes. Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

- 12.02.01 knowledge of types of exterior membranes
- 12.02.02 knowledge of purposes of exterior membranes and vapour/air barriers
- 12.02.03 knowledge of exterior membrane installation techniques
- 12.02.04 ability to place and secure exterior membranes

**Sub-task**

**12.03 Installs exterior sheathing. Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND

- 12.03.01 knowledge of types of exterior sheathing materials

**Supporting Knowledge & Abilities**

- 12.03.02 knowledge of properties of exterior sheathing
- 12.03.03 knowledge of exterior sheathing installation techniques
- 12.03.04 ability to measure and cut sheathing material

12.03.05 ability to place and secure exterior sheathing

**Task 13 Installs exterior finishes.**

*Related Components:* Furring strips, flashing, building paper, building membranes, lath and wire, tie wires, attaching hardware, adhesives, foam bases, cement board bases, pre-manufactured panels.

*Tools and Equipment:* Standard tools, power tools (see Appendix A for both).

**Sub-task**

**13.01 Installs rain screen systems. Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND
							13.01.01					knowledge of purposes and principles of rain screen systems
							13.01.02					knowledge of rain screen installation techniques
							13.01.03					knowledge of furring installation techniques
							13.01.04					ability to cut and install flashing
							13.01.05					ability to cut and install furring strips
							13.01.06					ability to install membrane material
							13.01.07					ability to install rain screen systems

**Sub-task**

**13.02 Installs lath/stucco wire. Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND
							13.02.01					knowledge of types of stucco wire
							13.02.02					knowledge of types of laths
							13.02.03					knowledge of attaching hardware

13.02.04	knowledge of stucco wire installation techniques
13.02.05	knowledge of lath installation techniques
13.02.06	knowledge of expansion joint requirements
13.02.07	ability to install stucco wire
13.02.08	ability to install laths
13.02.09	ability to install trim, beads, and expansion joints

**Sub-task**

**13.03 Installs Exterior Insulation Finish System (EIFS).**

**Supporting Knowledge & Abilities**

<u>NF</u> ND	<u>NS</u> yes	<u>PE</u> yes	<u>NB</u> ND	<u>QC</u> yes	<u>ON</u> yes	<u>MB</u> yes	<u>SK</u> yes	<u>AB</u> yes	<u>BC</u> no	<u>NT</u> ND	<u>YK</u> ND	<u>NU</u> ND
					13.03.01		knowledge of types of EIFS					
					13.03.02		knowledge of base installation techniques					
					13.03.03		knowledge of attaching hardware					
					13.03.04		knowledge of adhesives					
					13.03.05		knowledge of trims and finishes					
					13.03.06		ability to install EIFS					

**Sub-task**

**13.04 Manufactures panels.**

**Supporting Knowledge & Abilities**

<u>NF</u> ND	<u>NS</u> yes	<u>PE</u> yes	<u>NB</u> ND	<u>QC</u> yes	<u>ON</u> yes	<u>MB</u> yes	<u>SK</u> yes	<u>AB</u> yes	<u>BC</u> yes	<u>NT</u> ND	<u>YK</u> ND	<u>NU</u> ND
					13.04.01		knowledge of types of manufactured panels					
					13.04.02		knowledge of manufactured panel construction techniques					
					13.04.03		ability to lay out framing					
					13.04.04		ability to secure framing					

- 13.04.05 ability to place and install substrate
- 13.04.06 ability to place and secure exterior finish

**Sub-task**

**13.05 Installs pre-manufactured panels.**

**Supporting Knowledge & Abilities**

<u>NF</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>YK</u>	<u>NU</u>
ND	yes	yes	ND	yes	yes	yes	yes	yes	yes	ND	ND	ND
					13.05.01							knowledge of types of pre-manufactured panels
					13.05.02							knowledge of pre-manufactured panel installation techniques
					13.05.03							knowledge of attaching hardware
					13.05.04							ability to secure panels to crane
					13.05.05							ability to give hand signals to crane operators
					13.05.06							ability to place and attach pre-manufactured panels

## APPENDICES

## TOOLS AND EQUIPMENT

### Standard Tools

adjustable wrenches	measuring tape
aviation snips	multi-tip screwdriver
broom	nippers
builders level	pails
chalk line	pencils
channel cutters	pliers
circle cutters	plumb bob
clamps	pop rivet gun
calculator	rubber mallet
caulking gun	sandpaper
cold chisel	scissors
crimpers	sharpening stone
deck punch	spirit level
dry line	sponge
drywall lifter	stapler
drywall saw	straight edge
extension cord	T-square
files	tack puller
framing square	tape measure
hack saw	tin snips
hammers	try square (right angle gauge)
hand sander	utility knives
hand snips	water level
keyhole saw	wire bender
lather's hatchet	wrenches
line clips	wrecking bar

### Safety Equipment

coveralls	goggles
ear plugs and muffs	hard hat
exhaust fan	life line
eye wash facilities	masks (particle, vapour)
face shields	portable lighting
fall arresters	respirators
fire blankets	rope grabs
fire extinguishers	safety belt
first aid equipment	safety glasses
fresh air hood	safety vest
full body harness	signage
fume and toxic gas detector	steel toe boots
gloves	warning tapes



### **Scaffolding and Access Equipment**

aluminum planks	rolling scaffolds
boatswain's chair	sawhorses
boom lifts	scissor-lift
ladders	stationary scaffolds
ladder jacks	stilts
lean jacks	swing stage
mechanical scaffolds	

### **Power Tools and Equipment**

band saw	jig saw
chop saw	laser level
circular saw	mitre saw
compressor	planer
drywall gun	powder-actuated tools
drywall router	power nailer/fastener
electric drill	power screwdriver
electric hammer	power shears (snips)
electric scissors	reciprocating saw
generator	router
grinder	sabre saw
heat gun	stapler
hot knife	table saw
hot table	

### **Speciality Tools and Equipment**

arc welder	moisture meter
bolt cutter	mig welder
grid punch	mud pan
hanger wire bender	pole sander
hawk and trowel	putty knife
knee pads	suction cups
laser alignment equipment	tape holder
machine taping tools	thermometer
magnetic punch	transit

**BLOCKS AND TASKS WEIGHTING****BLOCK A OCCUPATION SKILLS**

	<u>NF</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>YK</u>	<u>NU</u>	National Average
%	ND	10	30	ND	20	15	10	15	30	15	ND	ND	ND	18%

Task 1 Interprets occupational documentation.

	<u>NF</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>YK</u>	<u>NU</u>	
%	ND	10	20	ND	10	25	30	44	20	10	ND	ND	ND	21%

Task 2 Organizes work.

	<u>NF</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>YK</u>	<u>NU</u>	
%	ND	30	25	ND	35	22	25	19	20	55	ND	ND	ND	29%

Task 3 Lays out work.

	<u>NF</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>YK</u>	<u>NU</u>	
%	ND	50	30	ND	35	34	30	19	40	30	ND	ND	ND	34%

Task 4 Uses and maintains tools and equipment.

	<u>NF</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>YK</u>	<u>NU</u>	
%	ND	10	25	ND	20	19	15	18	20	5	ND	ND	ND	16%

**BLOCK B FRAMING**

	<u>NF</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>YK</u>	<u>NU</u>	National Average
%	ND	35	25	ND	35	28	15	30	30	45	ND	ND	ND	30%

Task 5 Erects non-load-bearing steel studs.

	<u>NF</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>YK</u>	<u>NU</u>	
%	ND	75	50	ND	35	62	60	50	60	40	ND	ND	ND	54%

Task 6 Erects load-bearing steel studs.

	<u>NF</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>YK</u>	<u>NU</u>	
														46%

% ND 25 50 ND 65 38 40 50 40 60 ND ND ND

**BLOCK C INTERIOR SYSTEMS**

	<u>NF</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>YK</u>	<u>NU</u>	National Average
%	ND	50	30	ND	35	37	50	45	25	20	ND	ND	ND	37%

Task 7 Installs access flooring systems.

	<u>NF</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>YK</u>	<u>NU</u>	
%	ND	5	40	ND	10	9	5	4	5	10	ND	ND	ND	11%

Task 8 Installs wall systems.

	<u>NF</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>YK</u>	<u>NU</u>	
%	ND	50	15	ND	35	36	40	39	35	50	ND	ND	ND	38%

Task 9 Installs ceiling systems.

	<u>NF</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>YK</u>	<u>NU</u>	
%	ND	35	15	ND	35	33	30	45	35	30	ND	ND	ND	32%

Task 10 Installs sound barriers and lead shielding.

	<u>NF</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>YK</u>	<u>NU</u>	
%	ND	5	20	ND	20	16	10	7	15	10	ND	ND	ND	13%

Task 11 Finishes drywall.

	<u>NF</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>YK</u>	<u>NU</u>	
%	ND	5	10	ND	0	6	15	5	10	0	ND	ND	ND	6%

**BLOCK D EXTERIOR SYSTEMS**

	<u>NF</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>YK</u>	<u>NU</u>	National Average
														15%

%	ND	5	15	ND	10	20	25	10	15	20	ND	ND	ND	
---	----	---	----	----	----	----	----	----	----	----	----	----	----	--

Task 12 Installs membranes.

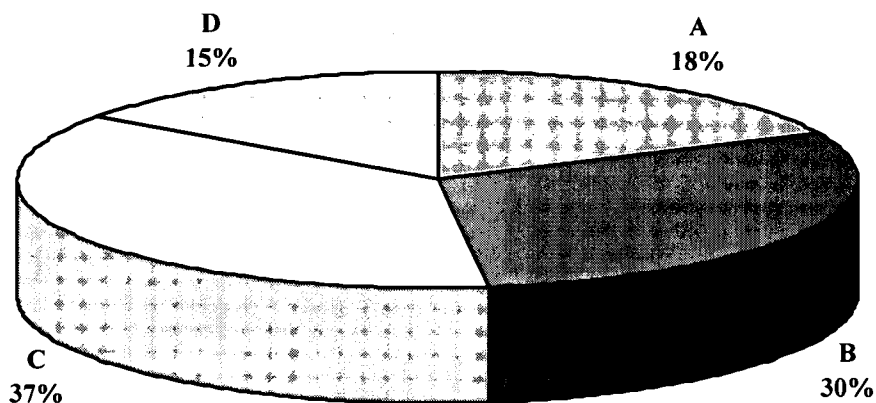
	<u>NF</u>	<u>NS</u>	<u>PE</u>	<u>NB</u>	<u>QC</u>	<u>ON</u>	<u>MB</u>	<u>SK</u>	<u>AB</u>	<u>BC</u>	<u>NT</u>	<u>YK</u>	<u>NU</u>	
%	ND	60	25	ND	50	62	60	40	35	30	ND	ND	ND	45%

Task 13 Installs exterior finishes.

	<u>NF</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>YK</u>	<u>NU</u>	
%	ND	40	75	ND	50	38	40	60	65	70	ND	ND	ND	55%

**PIE CHART\***

**Lather (Interior Systems Mechanic)**



**TITLES OF BLOCKS**

Block A	<b>OCCUPATION SKILLS</b>	Block C	<b>INTERIOR SYSTEMS</b>
Block B	<b>FRAMING</b>	Block D	<b>EXTERIOR SYSTEMS</b>

\* The 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 one hundred up to one hundred and fifty multiple-choice questions on each examination.

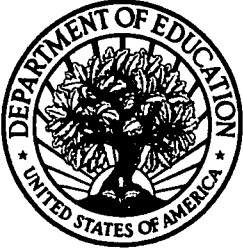
LATHER (INTERIOR SYSTEMS MECHANIC) (2002)

BLOCKS	TASKS	SUB-TASKS					
A Occupation Skills	1. Interprets occupational documentation.	<table border="1"> <tr> <td>1.01 Interprets blueprints and specifications.</td> <td>1.02 Interprets codes and regulations.</td> <td>1.03 Interprets material documentation.</td> </tr> </table>	1.01 Interprets blueprints and specifications.	1.02 Interprets codes and regulations.	1.03 Interprets material documentation.		
	1.01 Interprets blueprints and specifications.	1.02 Interprets codes and regulations.	1.03 Interprets material documentation.				
	2. Organizes work.	<table border="1"> <tr> <td>2.01 Prepares work site.</td> <td>2.02 Estimates materials and supplies.</td> <td>2.03 Manages time.</td> <td>2.04 Organizes materials and supplies.</td> <td>2.05 Co-ordinates work with others.</td> </tr> </table>	2.01 Prepares work site.	2.02 Estimates materials and supplies.	2.03 Manages time.	2.04 Organizes materials and supplies.	2.05 Co-ordinates work with others.
	2.01 Prepares work site.	2.02 Estimates materials and supplies.	2.03 Manages time.	2.04 Organizes materials and supplies.	2.05 Co-ordinates work with others.		
3. Lays out work.	<table border="1"> <tr> <td>3.01 Establishes grid line/starting point.</td> <td>3.02 Transfers information from blueprint to work site.</td> </tr> </table>	3.01 Establishes grid line/starting point.	3.02 Transfers information from blueprint to work site.				
3.01 Establishes grid line/starting point.	3.02 Transfers information from blueprint to work site.						
4. Uses and maintains tools and equipment.	<table border="1"> <tr> <td>4.01 Uses hand tools.</td> <td>4.02 Uses power tools.</td> <td>4.03 Uses base-levelling equipment.</td> <td>4.04 Uses powder-actuated tools.</td> <td>4.05 Uses scaffolding and access equipment.</td> <td>4.06 Maintains tools and equipment.</td> </tr> </table>	4.01 Uses hand tools.	4.02 Uses power tools.	4.03 Uses base-levelling equipment.	4.04 Uses powder-actuated tools.	4.05 Uses scaffolding and access equipment.	4.06 Maintains tools and equipment.
4.01 Uses hand tools.	4.02 Uses power tools.	4.03 Uses base-levelling equipment.	4.04 Uses powder-actuated tools.	4.05 Uses scaffolding and access equipment.	4.06 Maintains tools and equipment.		
B Framing	5. Erects non-load-bearing steel studs.	<table border="1"> <tr> <td>5.01 Frames walls and ceilings.</td> <td>5.02 Installs metal door and window frames.</td> <td>5.03 Installs access panels.</td> </tr> </table>	5.01 Frames walls and ceilings.	5.02 Installs metal door and window frames.	5.03 Installs access panels.		
	5.01 Frames walls and ceilings.	5.02 Installs metal door and window frames.	5.03 Installs access panels.				
6. Erects load-bearing steel studs.	<table border="1"> <tr> <td>6.01 Frames roof.</td> <td>6.02 Frames floors.</td> </tr> </table>	6.01 Frames roof.	6.02 Frames floors.				
6.01 Frames roof.	6.02 Frames floors.						
C Interior Systems	7. Installs access flooring systems.	<table border="1"> <tr> <td>7.01 Installs pedestals.</td> <td>7.02 Installs supporting hardware.</td> <td>7.03 Installs flooring panels.</td> </tr> </table>	7.01 Installs pedestals.	7.02 Installs supporting hardware.	7.03 Installs flooring panels.		
	7.01 Installs pedestals.	7.02 Installs supporting hardware.	7.03 Installs flooring panels.				
	8. Installs wall systems.	<table border="1"> <tr> <td>8.01 Installs insulation.</td> <td>8.02 Installs demountable walls.</td> <td>8.03 Installs drywall.</td> <td>8.04 Installs shaft walls.</td> <td>8.05 Installs security mesh.</td> </tr> </table>	8.01 Installs insulation.	8.02 Installs demountable walls.	8.03 Installs drywall.	8.04 Installs shaft walls.	8.05 Installs security mesh.
	8.01 Installs insulation.	8.02 Installs demountable walls.	8.03 Installs drywall.	8.04 Installs shaft walls.	8.05 Installs security mesh.		
9. Installs ceiling systems.	<table border="1"> <tr> <td>9.01 Installs suspended ceilings.</td> <td>9.02 Installs non-suspended ceilings.</td> <td>9.03 Installs dropped ceiling/hulk/banks.</td> </tr> </table>	9.01 Installs suspended ceilings.	9.02 Installs non-suspended ceilings.	9.03 Installs dropped ceiling/hulk/banks.			
9.01 Installs suspended ceilings.	9.02 Installs non-suspended ceilings.	9.03 Installs dropped ceiling/hulk/banks.					

LATHER (INTERIOR SYSTEMS MECHANIC) (2002)

BLOCKS	TASKS	SUB-TASKS	
D Exterior Systems	10. Installs sound barriers and lead shielding.	10.01 Installs sound barriers. 10.02 Installs lead shielding.	
	11. Finishes drywall.	11.01 Selects materials. 11.02 Applies filler and tape. 11.03 Performs finish sanding.	
	12. Installs membranes.	12.01 Installs interior membranes. 12.02 Installs exterior membranes. 12.03 Installs exterior sheathing.	
	13. Installs exterior finishes.	13.01 Installs rain screen systems. 13.02 Installs tub/shower ware.	13.03 Installs Exterior Insulation Finish System (EIFS). 13.04 Manufactures panels. 13.05 Installs pre-manufactured panels.

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