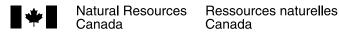
An Essential Tool for Canadian Companies to Identify Opportunities and Meet the Requirements of the Japanese Housing Market







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### Introduction

## **⇒** Background

The growth potential of the Japanese housing market presents many opportunities for Canadian companies. The Japanese government's 7th Housing Construction Five-year Program for the fiscal years 1996-2000 called for:

- additions to, or remodeling of about 700,000 housing units during the fiveyear period; and
- housing supply of 500,000 units in five years in the centre of urban areas.

The government also identified several activities as priorities, including:

- formation of good quality housing stock that meets the nation's needs;
- formation of safe, comfortable urban living and living environments;
- provisions to foster an active elderly society; and
- formation of housing and living environments that contribute to regional revitalization.

The Japanese consumer's interest in quality housing parallels the government plans. Consumers are looking for North American design and styling that meets the high standards they are used to having in traditional post—and-beam construction. They are interested in durable products, energy efficiency, healthy housing and barrier-free design.

Canadian wood frame housing and a variety of related products are ideal for meeting the needs of the Japanese market. Housing systems such as R-2000 and Super E<sup>TM</sup> demonstrate the high levels of quality, energy efficiency and indoor comfort that consumers are demanding. The Canadian wood frame house is also known and accepted in Japan. The system has been tested and accepted by consumers and is endorsed by the Japan '2 x 4' Builders' Association.

Regulations and approvals are also changing, creating opportunities for Canadian suppliers. The Building Standard Law was amended in 1992 and allows Canadian wood frame construction (certain restrictions apply). The National Lumber Grades Authority (NLGA) standards for lumber grading are now accepted as Japanese equivalents. Many Canadian wood products can be graded in Canada and will be accepted in Japan. These changes streamline the approval process and give Canadian products a head start over the products of many other countries.

## → Highlights of Exporting Canadian Housing Products and Systems to Japan

The first step that a Canadian company must take when considering exporting housing products to Japan is to determine whether their products are export-ready.

Highlights of Exporting Canadian Housing Products and Systems to Japan provides a detailed overview of the export opportunities and potential of Canadian housing products.

People who want a detailed discussion of these topics can consult the full publication, *Exporting Canadian Housing Products and Systems to Japan*, which:

- compares Canadian and Japanese housing practices;
- compares Canadian and Japanese codes and standards;
- describes the export potential of Canadian housing products and systems for Japan;
- identifies materials and systems that present the greatest export opportunities;
- references applicable codes and standards in Canada and Japan; and
- contains useful insights into the market and culture of Japan.

#### To purchase the publication, use the order form on page 47, or contact:

Natural Resources Canada, Buildings Group Publications 580 Booth Street, 13th floor, Ottawa, ON K1A 0E4

Fax: (613) 996-9909

E-mail: buildingpubs@nrcan.gc.ca

#### **→** How to Use the Book

The book is divided into five sections:

- 1. **Design and Planning**—a key step in understanding the market, the cultural differences and the various approvals processes.
- 2. **Building Envelope**—covering all the components needed to complete the building envelope for an energy efficient wood frame house.
- 3. **Mechanical Systems**—examining the systems and products that keep the house running.
- 4. **Plumbing and Electrical**—comparing North American products with the Japanese market and regulations.
- 5. **Finishing and Specialty Products**—discussing high quality Canadian products that have excellent export potential to Japan.

Export Potential and the Export Opportunities are identified at the beginning of each chapter. The reader can get a quick overview of the chapter, then continue on through the entire chapter for in-depth information.

Following the material in the entire book will help a potential exporter gain a better understanding of the market for housing products in Japan. Each chapter is independent so that the reader can choose to read only about their areas of personal interest.

#### **→** Appendices

Appendices are included for readers who need specific reference information and additional resources:

- Appendix A—Codes and Standards
- Appendix B—Masterformat Numbers
- Appendix C—Suppliers, Industry Associations and Manufacturers
- Appendix D—Figures
- Appendix E—Tables
- Appendix F—Additional Resources
- Appendix G—Product and Exportability List

# **⇒** Exportability Ratings

Materials and systems have been assigned an exportability rating to help a supplier quickly gauge the readiness of a product for export. The ratings are based on regulatory barriers only.

A material or system with a rating of:



Is exportable to Japan without change



Requires minor adaptation to be exported to Japan



Is not exportable at this time, requires evaluation

There are often additional factors that need to be taken into consideration before introducing a product into the marketplace.

#### For example:

- a product may be very heavy and expensive to ship;
- the domestic market may already be meeting the demand for a product; or
- a product is unfamiliar to the Japanese building community, which may limit its acceptance, especially in smaller regions or rural areas.

In all these cases, even though the product has been rated "exportable", an exporter may conclude that it would be too costly to supply the product or be impossible to achieve significant market penetration.

Regulations are also constantly changing. While all reasonable attempts have been made to present accurate information, exporters must consult appropriate experts to confirm the most current details and to obtain correct interpretations of any codes, standards, requirements or guidelines.

#### **⇒** Summary of Codes and Standards

Codes, standards and regulations are discussed throughout every chapter as they apply to specific housing systems and products. Each chapter has also been thoroughly referenced to both Canadian and Japanese codes and standards. This is critical for the exporter to be able to compare the specific regulations their product currently meets in Canada with the appropriate standards in Japan. There are also references to programs that set guidelines or have requirements related to various topics such as energy efficiency and barrier-free construction.

#### Canada

The National Building Code of Canada (NBC) is the document that defines how buildings are to be constructed in Canada.

The Model National Energy Code for Houses (MNECH) defines the energy efficiency requirements for buildings and building components. As with the NBC, it is voluntary unless adopted by a province to become law.

The Canadian Standards Association (CSA), the National Fire Protection Association (NFPA) and Underwriters' Laboratories of Canada (ULC) are some of the agencies involved in setting standards for housing products.

#### Japan

The Building Standard Law of Japan (BSL) is the Japanese equivalent of the National Building Code of Canada. The BSL covers health and safety issues in Japanese buildings. Notification 56, in particular, deals with wood frame construction and is extremely important for Canadian exporters. Article 2 defines the requirements for fireproof buildings and quasi-fireproof buildings.

The Japan Energy Conservation Law, the New Energy Conservation Standard (NECS), and the most recent Next Generation Energy Conservation Standard (NGECS) are comparable to the MNECH in Canada. The standards are also voluntary.

There are several programs and standards to encourage energy efficiency in buildings. As part of the Energy Efficiency Utilization Law, the Ministry of International Trade and Industry and the Ministry of Construction developed the "Criteria for Owner's Judgment on the Energy Efficient Utilization in Residential Buildings". These guidelines are voluntary.

Government Housing Loan Corporation (GHLC) deals with financing housing construction and purchases. The GHLC has set guidelines in many areas including energy efficiency and barrier-free housing.

The Japanese Industrial Standard (JIS) and the Japanese Agricultural Standard (JAS) are applied to many housing products. These standards are similar to those referenced in Canadian building codes such as CSA.

## Tips for Potential Exporters

- Thoroughly research the suitability of your product for the Japanese market. Use *Exporting Canadian Housing Products and Systems to Japan* to determine what, if any, changes you may need to make to your product.
- Consult with a qualified architect and GHLC to ensure that your product will comply with and meet the expectations of all regulatory and warranty bodies in Japan, including the specific district where the product will be used. Determine what approvals will be needed.
- Learn about the export process. Consult Canada Mortgage and Housing Corporation's, Canadian Housing Export Centre.
- Inquire about how you can make your product readily saleable in the
  Japanese market. Consult National Research Council Canada's, Canadian
  Construction Materials Centre (CCMC). The CCMC has a liason
  agreement with the Japanese Centre for Better Living. This liason makes it
  much easier for Canadian suppliers to sell certain housing products,
  especially windows, doors, kitchen cabinets and ventilation systems in
  Japan.
- Plan the packaging, loading, shipping and unloading to avoid damage to
  the products. Damaged materials are seen as inferior and reflect poorly on
  Canadian products. Incorporate colour-coding materials to match packing
  documentation and installation instructions. This helps reduce misuse of
  materials and complaints of shipping shortages.
- Prepare full installation instructions in Japanese. Consider providing on-site training.
- Determine all tools that will be necessary to install your product. These should be provided. If the tools are power tools, they must conform to Japanese electrical voltage. Spare parts may also be needed (e.g., drill bits, drivers for Robertson screws).

- Determine all parts that will be needed to install your product (e.g., Robertson screws, special bolts and fasteners, sealants). These products must also meet all the requirements for the district.
- Plan to provide extra materials to allow for selection and replacement of damaged items.
- Consider establishing a damage complaint system in English and Japanese so that both parties understand the content and procedures for resolving complaints. It is a good practice to take pictures of products before shipping and require pictures that confirm the quality when products are unpacked after delivery and after installation.
- Seek out further information and assistance using the agencies listed in *Appendix F, Additional Resources*.

# **Design and Planning**

# **Export Potential**

This section provides architectural, regulatory, and cultural information that is essential to successful design and planning for the Japanese housing market. This background information has specific effects on the export potential of many housing products and systems (detailed in later sections). However, design and planning has more general implications.

For example, North American or Western design is extremely popular in Japan. Many Japanese designers work with Western design, but do not always capture the best features. This is particularly true in housing. There is great potential in Japan for design that combines the North American features with Japanese spatial planning.

Safety and energy efficiency are extremely important issues due to the Japanese history of devastating fires, earthquakes and the high cost of electricity. Structurally innovative and soundly designed import-housing and environmentally friendly, energy efficient, or sustainable housing products have good export potential.

Trends drive the Japanese market. Understanding trends and their lifecycles is critical. For example, gardening, especially English country gardens and outdoor lifestyle are trendy. Exterior design, landscaping and patio systems focusing on a country garden theme will likely be marketable. Combining image, feeling and lifestyle in housing design, marketing and promotions is important for successful products.

The Internet, including electronic media, is another area that is playing an increasingly bigger role in housing design and planning. In the construction industry, the major suppliers have Web sites. This reduces their costs for marketing and distributing product specifications. CD-ROM catalogues are also common. As the industry moves in this "electronic" direction, exporters will want to consider providing catalogues, specifications and design service information either on Web sites or on CD-ROM. These products have good export potential and will likely become more expected as part of import-housing packages.

# **Export Opportunities**

#### Is exportable to Japan without change



# Requires minor adaptation to be exported to Japan



- Construction Drawings, which Meet the Building Standard Law of Japan (BSL)
   Standards and Government Housing and Loan Corporation (GHLC)
   Specifications
- · Designs and Options Packages
- Plans Libraries

# **Foundations**

## **Export Potential**

Due to weight and bulk, cement, concrete block, and rebar are items that may be more cost effective to obtain in Japan. However, foundation-related building materials such as insulation and dampproofing are excellent items to promote for export to Japan.

Insulated, modular concrete forms and preserved-wood systems have a good potential for export. These systems may save labour and time during the construction process. Clear instructions written in Japanese, along with an instructional video, will help provide an easy transition to new construction systems and techniques.

There is a related opportunity for Canadians to promote expertise in design and construction of full-height foundation techniques and systems, especially in areas of providing comfortable and healthy below-grade spaces.

### **Export Opportunities**

#### Is exportable to Japan without change



- Drainage Materials
- Pressure-Treated Wood



- Cast-in-Place Concrete
- Dampproofing Materials
- Insulated Modular Concrete Form Systems
- Pre-cast Concrete
- Unit Masonry

# **Framing**

### **Export Potential**

The potential for Canadians to export framing materials to Japan is good. The National Lumber Grades Authority (NLGA) stamp is approved and NLGA-stamped lumber is allowed in Japan. A number of North American companies are now supplying pre-cut lumber to the specifications for the Japanese post-and-beam market. Traditional housing builders have become more aware of import products. This is an excellent niche market.

Japan relies heavily on imports to obtain naturally dried structural lumber. The product is versatile and can be used in many aspects of wood frame construction. Canadians can cater to two housing types:

- 1) Platform Framing Construction. Platform framing basically uses the same types and sizes of dimensional lumber used in North American building.
- Traditional Post-and-Beam Construction. Custom cut or pre-cut lumber is often used for this type of construction. The potential exists for export of glue-laminated and larger-sized lumber.

The most popular species of lumber for export are kiln-dried spruce, pine and fir (SPF-KD), Douglas fir, hemlock fir and lodge pole pine. Structural performance and visual appearance are important to the Japanese market. Lumber that is out-of-square, has many knots, or looks bad, is often rejected as inferior.

Alternative framing materials such as engineered wood products (EWP) also have good potential for export to Japan. Using these products also has environmental benefits that will likely appeal to the Japanese market.

The supplier must be concerned about many cultural and practical issues when exporting lumber.

- Lumber quality is important. Do not ship inferior grades of lumber.
- The visual appearance of lumber is seen as reflecting its quality.
- Damaged lumber and plywood are unacceptable.
- Extra materials should be provided, but this decision must be balanced with the high cost of waste disposal.
- Wet lumber should never be loaded and shipped.
- It takes many people to unload containers. Lumber packages should be bundled with pull bars or ropes to aid in pulling lumber loads out of the container. Bundling lumber loads in smaller packages is also very helpful in the unloading process.

- Roof trusses are often manufactured in awkward shapes that match the roof. These trusses may be difficult to load in shipping containers.
- Roof trusses can sometimes be difficult to maneuver on site; it may take the help of a crane to lift the trusses into place. This may be difficult depending on the shape and size of the building sites.

## **Export Opportunities**

#### Is exportable to Japan without change



- Construction Hardware (Excluding Nails)
- Dimensional Lumber
- Non-power Tools (Specialized)
- Pre-cut Framing
- Pressure-Treated Lumber
- Sheathing



- Engineered Lumber
- Kit or Panelized Houses
- Panel Systems
- Pre-engineered Trusses

# Insulation

# **Export Potential**

Insulation-related building materials have good potential for export to Japan. The materials are generally lightweight and easy to handle. Along with insulation materials, Canadians have an opportunity to promote their expertise in energy efficient building technologies. The proper use and application of insulation building materials is very important in creating a successful energy efficient and comfortable home.

### **Export Opportunities**

#### Is exportable to Japan without change



- Batt Insulation
- Insulated Framing Panels
- Insulation Fasteners
- Rigid Board Insulation, EPS
- Spray Applied Foam

# Requires minor adaptation to be exported to Japan



- Blown-in-Batt System (BIBS)
- Foamed-in-Place
- Loose Fill Insulation

# Air and Moisture **Barriers**

# **Export Potential**

Air and moisture barriers and related building materials have a good potential for export to Japan. Canadian systems and methods are somewhat better than those in Japan. There is an opportunity for Canadians to promote their expertise in the design and construction of air and moisture barriers.

Exporters are advised to:

- provide education about the benefits of energy efficient houses; and
- include proper instructions and details for insulation and vapour barrier installations.

# **Export Opportunities**

#### Is exportable to Japan without change



- Air Barrier Materials
- Joint and Air Sealing Materials
- Moisture Barrier Materials

#### Requires minor adaptation to be exported to Japan



None Indicated

# Siding, Soffits and Fascia

# **Export Potential**

There is good potential to export exterior finishing materials to Japan. North American exterior finishing materials are more aesthetically pleasing, but strict fire regulations may prevent the use of many materials. Exporters should consider prefinishing siding materials prior to export to Japan. Avoid materials that require painting or waterproofing on site. In some areas of Japan, heavy rain and wind are considerations when choosing exterior siding. Appropriate fastening systems and finishes will be important.

## **Export Opportunities**

#### Is exportable to Japan without change



- Aluminum Siding, Soffits and Fascia
- Brick Slices, Siding, Soffits and Fascia
- Composition Wood and Cement Siding, Soffits and Fascia
- Full Brick Siding, Soffits and Fascia
- Hardboard Siding, Soffits and Fascia
- Pre-formed Metal Siding, Soffits and Fascia
- Simulated Stone Siding, Soffits and Fascia
- Vinyl Siding, Soffits and Fascia
- Wood Siding, Soffits and Fascia

# Requires minor adaptation to be exported to Japan



- Aluminum Siding, Soffits and Fascia
- Composition Wood and Cement Siding, Soffits and Fascia
- Hardboard Siding, Soffits and Fascia
- · Pre-formed Metal Siding, Soffits and Fascia
- Vinyl Siding, Soffits and Fascia
- Wood Siding, Soffits and Fascia

# **Roof Coverings**

# **Export Potential**

Sheet metal roofing and metal and asphalt shingles are not commonly used in Japan but may provide export opportunities. Their non-combustible nature and their availability in different colours, shapes, sizes and patterns, make them a consideration. Approvals may be necessary to demonstrate the non-combustible rating. The products are available in different shapes and patterns, some of which simulate the appearance of wood.

## **Export Opportunities**

#### Is exportable to Japan without change



- Asphalt Shingles
- · Fasteners for Roof Systems
- Flashing and Trim
- Membrane Eaves Protection
- Metal Shingles
- Pressed Cement or Clay Tile
- Ridge Vents
- Sheet Metal Roofing
- Underlay Materials



- Ridge Vents
- Wood Shingles or Shakes

# Windows and Exterior Doors

# **Export Potential**

There is an excellent opportunity for Canadian window manufacturers to export their products to Japan. In the wood housing market, the most important issue is the severe requirements in quasi-fireproof districts.

Important conditions:

- Unmodified Canadian window and door products can be used in non-quasifireproof districts, mainly in rural areas.
- Unmodified Canadian window products can be used in quasi-fireproof districts, if
  automatic metal shutters with a thermal sensor switch are installed on the windows.
  The use of metal shutters is common in Japanese residential housing. Many Japanese
  housing companies use automatic shutters, allowing greater flexibility in the types
  and selection of windows installed.
- Unmodified Canadian products can be used, except in areas of the building liable to catch fire.

To supply windows in the urban areas without complying to regulations requires a complete redesign of the window to pass the Japanese fire test. The redesign will include wired or thick, heat-strengthened glass and elimination or protection of combustible framing and gasketing materials.

There is considerable interest in wooden windows, especially in the high-end market. Aluminum-clad wood windows are particularly popular in the high-end market, because they combine the advantages of a wood interior finish and easier exterior maintenance. Aluminum and PVC windows are more common in the mid-range and lower-end market.

# **Export Opportunities**

#### Is exportable to Japan without change



- Fibreglass Windows and Doors (if installed outside fire zones and in northern Japan)
- Metal Doors
- Vinyl Windows (if installed outside fire zones and in northern Japan)
- Wood and Aluminum-Clad Windows and Doors (if installed outside fire zones and in northern Japan)

# Requires minor adaptation to be exported to Japan



- Fibreglass Windows and Doors (if in hot, humid climates)
- Vinyl Windows (if in hot, humid climates)
- Wood and Aluminum-Clad Windows and Doors

# Drywall

# **Export Potential**

The export potential for drywall is limited, due to a high production capacity and low prices in Japan. There is also resistance by Japanese tradespeople to using large sheets that are heavier.

However, there may be potential for exporting drywall finishing materials such as corner bead, drywall tape, mesh and compound. These products are expensive in Japan and there are no regulations.

Tools may also present an export opportunity. Carpenters in Japan make their own installation tools at the construction site and most of the North American tools are not readily available.

The Building Standard Law of Japan (BSL) requires Japanese Industrial Standard (JIS) or JIS-equivalent gypsum board, commonly called drywall. However, test data can now be submitted if it is equivalent to JIS-testing methods. There have already been cases of Canadian drywall being approved. Fasteners must be JIS or meet JIS-equivalence.

Drywall is not a separate trade in the housing industry. North American drywall techniques are considered superior and there may be opportunities for training. A drywall installation training program for carpenters and programs for finishing work for painters could be considered.

# **Export Opportunities**

#### Is exportable to Japan without change



- Drywall Tools
- Joint Finishing Materials
- Trades Training



- Fasteners
- GB-F (Fire Resistant Drywall, Type-X)
- GB-R (Standard Drywall)
- GB-S (Water Resistant Drywall)

# **Space Heating**

# **Export Potential**

Space heating equipment presents a limited opportunity for Canadian exporters due to the need for an established service network for any equipment that is supplied.

# **Export Opportunities**

#### Is exportable to Japan without change



High-Pressure Ductwork

# Requires minor adaptation to be exported to Japan



- Air Source Heat Pumps
- Conventional Sheet Metal Ductwork
- Electric Resistance Boiler
- Electric Resistance Furnace
- Electric Resistance Radiant Floor Heating
- Geothermal or Ground Source Heat Pumps
- HOT2000 Energy Analysis Software
- Humidifiers
- Hydronic Radiant Floor Heating
- Low-Intensity Electric Radiant Ceiling Heating
- Natural Gas-Powered Heat Pumps
- Packaged Heat Pump Units
- Propane-Fired Boiler
- Propane-Fired Forced Air Furnace
- Trades Training

# **Air Conditioning**

# **Export Potential**

Cooling equipment presents a limited opportunity for Canadian exporters due to the need for an established service network for any equipment that is supplied.

# **Export Opportunities**

#### Is exportable to Japan without change



· None Indicated



- Air Source Heat Pumps
- Central Forced Air Systems
- Ductless Split Systems
- Geothermal or Ground Source Heat Pumps
- HOT2000 Energy Analysis Software
- Natural Gas-Powered Heat Pumps
- Packaged Heat Pump Units
- Portable Cooling Systems
- · Trades Training
- Window Air Conditioners

# Ventilation and Filtration

# **Export Potential**

Ventilation equipment presents a good opportunity for Canadian exporters due to the trend towards airtight construction and the increasing awareness of indoor air quality. Installer training and after-sales support will be required to ensure long-term customer satisfaction and repeat sales.

Portable and ducted air filtration systems present a good opportunity due to Japanese concerns about indoor air quality.

## **Export Opportunities**

#### Is exportable to Japan without change



- Electronic and Passive Electrostatic Filters
- Exhaust-Only Ventilation Systems
- Fabric Filters
- Odor and Volatile Gas Control Filters

# Requires minor adaptation to be exported to Japan



- Energy Recovery Ventilators
- Heat Recovery Ventilators
- HOT2000 Energy Analysis Software
- Trades Training

# **Domestic Water Heating**

## **Export Potential**

Water heating represents an opportunity for Canadian exporters. Assuming that seismic issues are addressed, batch and thermosyphon solar water heaters provide a very good opportunity for export. Propane and large capacity electric water heaters with time of day controls could be readily used in a private water utility without Japan Waterworks Association (JWWA) approvals. The need for servicing this type of equipment is not very common and usually consists of replacing it.

# **Export Opportunities**

#### Is exportable to Japan without change



Batch Solar Water Heaters



- Active Solar Water Heaters
- Air Source Heat Pump Water Heaters
- HOT2000 Energy Analysis Software
- Propane-fired Water Heaters
- Trades Training

# **Plumbing**

# **Export Potential**

Although all plumbing equipment and supplies require certification, recent deregulation should definitely open up the market for equipment and supplies. The new Waterworks Law (WWL) allows for third party certification, which will greatly reduce certification costs. Moreover, the new WWL is based on recognized international plumbing standards. Any products that now meet European or American standards should require little or no modification to be certified.

In the past, local districts and municipalities set additional standards. This system is abolished. All certified products must be accepted throughout Japan. This ensures a far broader market than was previously the case and makes certification more worthwhile.

The licensing of plumbers has been deregulated. This is unlikely to affect plumbing services, as all plumbers require a Japanese license. However, the change from a regional to a national licensing system will increase competition in plumbing services and may increase the demand for imported products as plumbers seek to become more competitive.

Design faucets and accessories have good potential especially in the high-end market. Even without certification, individual customers are allowed to use uncertified products for personal use.

Bath and shower units are extremely expensive in Japan. The high-end steam and shower units have good potential in a niche market. But more importantly, with modifications, products like the steam and shower unit could be adapted to the Japanese market.

# **Export Opportunities**

#### Is exportable to Japan without change



- Faucets and Shower Heads
- Shower Units
- Sinks and Laundry Tubs
- Toilets (if imported for personal use)

# Requires minor adaptation to be exported to Japan



• Bathtubs and Bath Enclosures

## **Electrical**

# **Export Potential**

As do-it-yourself (DIY) centres expand in Japan, there will be an excellent market for electric lighting and small appliances. However, the market is very competitive and there is already a fairly good selection of imported electrical lighting and small appliances. Imports from China and Southeast Asia are strong in the lower-end market. In the high-end market, Italy, Germany and Sweden are strong. The market for large appliances is very limited. Japanese suppliers provide a wide selection of products and options.

Still, there are very good opportunities, especially as part of housing packages, to export electrical lighting to Japan. There are no restrictions on electric lighting purchased by clients and if lighting is included in housing packages, there does not appear to be a problem. However, retail sales of all electrical equipment, including lighting, do require approval.

Canadian Standards Association (CSA) data can be used for approval under the Electrical Appliances and Material Control Law. The CSA mark is fairly well recognized in Japan. Many Japanese electrical supplies, including wiring and components, have CSA approval. CSA is one of nine organizations authorized in Japan for foreign specifications testing.

# **Export Opportunities**

#### Is exportable to Japan without change



- Central Vacuum Systems
- Electric Shutter Rain Doors
- Incandescent Lighting



- Fluorescent Lighting
- Range Hoods
- Refrigerators and Freezers
- Stoves

# **Flooring**

## **Export Potential**

There is an excellent market in Japan for flooring products, especially solid hardwood flooring. Wood flooring is preferred over carpeting and other floor surfaces, although a market does exist for each of these products. Stone and tile are popular, especially in entranceways or *Genkan*.

Solid wood flooring is one of the most marketable import housing products for Japan. High quality hardwood flooring is a major sales point for the high-end housing market and one of the main features that consumers identify with import housing. In the high-end market, clients prefer to have flooring throughout the house, including the kitchen and water closet areas. The most popular woods are oak, maple and pine.

Japan has very good quality veneer-laminated products. In Japan, quality is defined in terms of performance and structural integrity. The surface wood is extremely thin, with five to six layers of coatings and tends to have a less attractive plastic finish.

Tiles are commonly used for entrance areas. There is an excellent selection in Japan, but there are attractive and competitively priced import products. Terra cotta tiles have recently become very popular.

# **Export Opportunities**

#### Is exportable to Japan without change



- Adhesives, Glues and Mortars
- Carpet
- Ceramic Tile
- Cork Flooring
- Cushion Flooring
- Solid Wood Flooring
- Veneer Wood Flooring

# Requires minor adaptation to be exported to Japan



Trades Training

## Stairs and Handrails

# **Export Potential**

There is an excellent market in Japan for feature stairs and handrails, especially for solid wood products in the high-end market. They are a major selling point for import housing.

Japanese designers have not traditionally used stairs as an architectural feature. North American influence has made feature staircases very popular. However, there are area and design constraints. The Japanese view feature stairs as a luxury product and want to include North American stair components as much as possible. At a minimum, most stairways could incorporate newel posts, volutes, turnouts and balusters. In the high-end market with less space constraints, high quality, solid wood stair systems are very popular.

Canadian stair exporters should focus on:

- marketing high quality and durability; and
- maximizing design features, craftsmanship, quality and service.

# **Export Opportunities**

#### Is exportable to Japan without change



- Carpet-grade Stairs
- Solid Wood Stairs and Handrails
- Steel Stairs and Railings



- Design and Field Tools
- Trades Manuals

# Coatings and Wallcoverings

# **Export Potential**

The export opportunities for conventional interior wallcoverings are limited. There is some potential for exporting wood panels and artificial marble for decorative wall purposes. In Japan, there is a movement back to natural solutions in finishing materials. Natural products are a niche market, but have very good potential for export.

Wallcoverings are more widely used than paint in interior finishing. Clients prefer wallcoverings because of the broad selection of products available. Construction companies prefer them because they are inexpensive and reduce construction time. Wallcoverings range from vinyl paper in the low-end to linen and silk in the highend market.

Paint is normally only used for trim, although wood trim is usually clear-coated. Decorative painting techniques popular in North America could have a market in Japan as indoor air quality issues become more of a concern and clients select water-based paints over wallcoverings. Decorative painting could be a good niche market, using texture paints, glazes and techniques such as stippling, combing, and ragging.

# **Export Opportunities**

#### Is exportable to Japan without change



- Ceramic Tile
- Clear Coatings
- Design and Field Tools
- **Paints**
- Stains
- Trades Training

#### Requires minor adaptation to be exported to Japan



(2) • Wallpaper

# Cabinetry

# **Export Potential**

Storage space is a major issue for Japanese clients. Well-designed cabinetry has high appeal. North American cabinetry is popular, a main feature of import housing and is also gaining popularity with Japanese builders. With new supply and distribution outlets for wholesalers and retailers, import cabinetry is becoming a main feature of Japanese housing.

All styles of cabinetry are marketable in Japan. Japanese prefer natural wood and solid wood products. Few domestic suppliers offer wood cabinetry and most only manufacture wood laminates. Solid wood cabinetry is very expensive in Japan so Canadian solid wood products that are competitively priced have very good export potential.

Exporting kitchen cabinetry also has a very high potential because very few modifications are necessary. Differences in sizing are relatively easy to overcome by adjusting the toe height and allowing for Japanese sink sizes. In addition to opportunities in the import housing market, there are opportunities to sell cabinetry units in the new distribution and supply systems at the home and do-it-yourself (DIY) centres. There is also an opportunity to promote high-end designer hardware for cabinetry. Cabinetry is one of the key marketing features for import housing.

# **Export Opportunities**

#### Is exportable to Japan without change



- Cabinet Hardware
- Shoe Cabinet (*Getabako*)
- TV Cabinet and Shelving Units



- Kitchen Cabinets
- Vanities

## **Interior Doors**

# **Export Potential**

There is an excellent market in Japan for interior doors in import housing and for the domestic housing industry. Opportunities exist in single family dwellings, apartments and condominium complexes. All models of doors are considered a key import product for the housing industry. Imported doors are common in the '2 x 4' construction market, but could easily expand to traditional wood frame housing, especially as new housing product distribution centers develop. Another important market in the future will be the do-it-yourself (DIY) stores.

There is a very good market for all grades of products. However, in the low-end market, there is increasing competition from Southeast Asia, especially Indonesia. In the high- end market, designs, materials and finishes are very important. A good selection of design styles should be available for interior door packages including all types of doors in each design style.

Floor-to-ceiling bifold doors are not common in North America, but are very popular in Japan, especially in the high-end market. The most popular imports are hinged doors and bifold doors. With some modifications, double-swing French doors and Japanese *Tobusuma* could be marketed very effectively. *Tobusuma* are veneer-laminate sliding doors.

Door weight is also important. The Japanese consider heavy doors to be of higher quality. Most imported doors come with frames, but Japan also imports doors without frames.

High quality Japanese *shoji* frames were traditionally made from Akita cedar, but now most frames use imported spruce. An opportunity exists to manufacture *shoji* frames in North America, the main source of spruce.

# **Export Opportunities**

#### Is exportable to Japan without change



- Attic Access Doors
- · Bifold Doors
- Design and Field Tools
- French Doors
- Hardware

- Medium Density Fibreboard (MDF) Doors
- PVC Doors
- Sliding Doors (*Tobusuma*)
- Solid Wood Doors
- Wood Veneer Doors

# Requires minor adaptation to be exported to Japan



Pocket Doors

Sliding Doors (Shoji)

### **Interior Trim**

# **Export Potential**

There is an excellent market for interior trim products in Japan. There are no restrictions on imports and all products are marketable.

Traditionally, post-and-beam structures provided most of the feature components. Many Japanese clients want more North American design in their houses. Feature stairs, wood panelling and architectural trim are the main elements clients identify as North American design. Moulding is the easiest way to create this design image.

The wide selection of trim materials available in North American products can be marketed from the mid-range to high-end markets. There are only two major companies supplying North American-style decorative trim and architectural ornaments in Japan. Products are expensive and the selection is limited compared with the range of products available in Canada.

One of the biggest barriers to selling interior trim products in Japan is that builders and most architects have limited experience in designing ornamental trim and wood panelling. They have a limited knowledge of the wide selection of products available. A design service and visual material are very important for successfully marketing interior trim.

There is also potential to export cedar or hemlock trim and cedar ceiling panelling for the Japanese traditional market. Some Canadian companies are supplying this market. A number of American companies are aggressively developing finishing wood and trim products. These are competitively priced and of similar quality to Japanese products. As these products become readily available, the market will definitely expand.

# **Export Opportunities**

#### Is exportable to Japan without change



- Aluminum Bead
- Baseboards
- Ceiling Medallions
- Clear Coat Finishes
- Crown Mouldings
- Design and Field Tools
- Door and Window Mouldings
- Fingerjoint Mouldings

- **MDF** Mouldings
- Paint Finishes
- Pre-finished Mouldings
- Solid Wood Trim Products
- **Urethane Mouldings**
- Vinyl Mouldings
- Wall Panelling and Wainscotting

#### Requires minor adaptation to be exported to Japan



Trades Training

# Landscaping

# **Export Potential**

There is a good niche market for latticework, rose trellises, ornate iron lawn furniture and gazebos. Latticework is very popular but Japanese products are too expensive to be widely used. Garden accessory package options would be an excellent market and should be designed with themes such as the English Garden, which is very trendy. Detailed specifications are not as important as image for this type of product. A lifestyle image should be used in marketing material. Pictures of a garden tea party or barbecue party are very effective.

All types of garden furniture, including plastic, aluminum and cast iron lawn furniture, tables and umbrellas, have excellent potential. Planters should also be included in deck design, both built-in types and other planters. Decorative planters are very expensive and variety is limited. All items can be marketed as option packages.

There is a strong demand for brick and stone fencing. Ornate cast iron gates have good potential. Paving stones are popular for walkways and carport areas.

Other products to consider include greenhouses, outdoor hot tubs or whirlpool tubs, and shade awnings.

# **Export Opportunities**

#### Is exportable to Japan without change



- Brick Fencing
- Decking
- Gazebos
- Geotextiles
- Japanese Wood Deck (Nureen)
- Lattice
- Walkway Paving Stones
- Wood Fencing

# Requires minor adaptation to be exported to Japan



- Aluminum Fencing
- Steel Fencing

# **Specialty Products**

# **Export Potential**

The products covered in this section have been chosen because of their potential for export or their importance in relation to another building system. For example, water filtering and softening equipment has impacts on the plumbing system. However, this type of equipment requires approvals and cannot be exported to Japan.

In most cases, there are no regulations or the regulations are not considered limiting. Most products can be offered as option packages in both the mid-range and high-end markets. As competition increases in the import housing market in Japan, option packages can provide an additional marketing edge. Well designed packages can add significantly to the value of an imported home and increase the profitability of exports.

As specialty products, most of the items are overprized in Japan. There is a definite opportunity for exporters who can provide quality products at competitive pricing.

# **Export Opportunities**

#### Is exportable to Japan without change



- · Bathroom Accessories
- Carports
- Countertops
- Eavestroughing
- Exterior Ornamental Trim
- Fireplaces and Chimneys
- Home Care and Rehabilitation Equipment
- Laminated Shelving
- Mailboxes
- Under-floor Storage Unit
- Wire Shelving
- Wood Shelving



- Decorative Mouldings
- Exterior Columns
- Gable Vents
- House Numbers
- Window Shutters

#### Appendix A

#### **Codes and Standards**

A comprehensive listing of codes and standards that apply to the products in each section is included in the full publication.

#### Appendix B

#### **Masterformat Numbers**

A comprehensive listing of the Masterformat numbers and categories that apply to the products in each section is included in the full publication.

#### Appendix C

#### Suppliers, Industry Associations and Manufacturers

A listing of suppliers, industry associations and manufacturers, relevant to the products in each section, is included in the full publication.

#### Appendix D

#### **Figures**

A complete listing of the figures for each section is included in the full publication.

#### Appendix E

#### **Tables**

A complete listing of the tables for each section is included in the full publication.

#### Appendix F

# Exporting Canadian Housing Products and Systems to Japan

#### **→** Additional Resources

#### Canada

Natural Resources Canada

**CANMET Energy Technology Centre** 

**Buildings Group** 

580 Booth Street, 13th Floor Ottawa, Ontario K1A 0E4

Tel: 613 943-2260 Fax: 613 996-9909 www.buildingsgroup.net

Canada Mortgage and Housing Corporation

Canadian Housing Export Centre

700 Montreal Road

Ottawa, Ontario K1A 0P7

Tel: 613 748-2000 Fax: 613 748-2302 www.cmhc-schl.gc.ca

Department of Foreign Affairs

and International Trade

InfoCentre
25 Sussex Drive

Ottawa, Ontario K1A 0G2

Tel: 800 267-8376, 613 944-4000

www.dfait-maeci.gc.ca

National Research Council Canada Institute for Research in Construction Canadian Construction Materials Centre

Ottawa, Ontario K1A 0R6

Tel: 613 993-2607 Fax: 613 952-7673 www.nrc.ca/irc

Industry Canada CD Howe Building 235 Queen Street

Ottawa, Ontario K1A 0H5

Tel: 613 954-3037 Fax: 613 954-8048 www.ic.gc.ca

#### Japan

Building Research Institute,

The Ministry of Construction (BRI, MOC) 1 Tatehara, Tsukuba-shi, Ibaraki 305-0802

Tel: 011-81-298-64-2151 Fax: 011-81-298-64-2989

www.kenken.go.jp

Housing Bureau,

The Ministry of Construction (MOC) 2-1-3, Kasumigaseki, Chiyoda-ku,

Tokyo 100-8944

Tel: 011-81-3-3580-4311 Fax: 011-81-3-3502-3955

www.moc.go.jp

The Building Centre of Japan (BCJ)

No. 30 Mori Bldg., 3-2-2, Toranomon,

Minato-ku, Tokyo 105-8438 Tel: 011-81-3-3434-7155 Fax: 011-81-3-3434-5069 www.bcj.or.jp

Government Housing Loan Corporation

(GHLC)

1-4-10, Koraku, Bunkyo-ku,

Tokyo 112-8570

Tel: 011-81-3-3812-1111 Fax: 011-81-3-5800-8181 www.jyukou.go.jp

Japan External Trade Organization (JETRO)

JETRO Toronto

Trade Promotion Dept.

181 University Avenue, Suite 1600

Toronto, ON M5H 3M7 Tel: (416) 861-0000, ext. 229

Fax: (416) 861-9666 morganc@jetro.go.jp

#### Canada

Canadian Embassy in Japan 3-38 Akasaka, 7-Chome Minato-ku, Tokyo, 107-8503, Japan

Tel: 011-81-3-5412-6200 Fax: 011-81-3-5412-6247 www.dfait-maeci.gc.ca/ni-ka

Consulate General of Canada in Osaka 2-2-3 Nishi-shinsaibashi

Chuo-ku, Osaka 542-0086, Japan

Tel: 011-81-6-6212-4910 Fax: 011-81-6-6212-4914 www.dfait-maeci.gc.ca/ni-ka

Consulate of Canada in Fukuoka

FT Bldg. 9F

4-8-28 Watanabe-dori

Chuo-ku, Fukuoka, 810-0004, Japan

Tel: 011-81-92-752-6055 Fax: 011-81-92-752-6077 www.dfait-maeci.gc.ca/ni-ka

Consulate of Canada in Nagoya Nakato Marunouchi Bldg. 6F 3-17-6 Marunouchi Naka-ku Nagoya, 460-0002, Japan

Tel: 011-81-52-972-0450 Fax: 011-81-52-972-0453 www.dfait-maeci.gc.ca/ni-ka

#### Japan

Ministry of International Trade and Industry (MITI), Housing Industry Division 1-3-1 Kasumigaseki, Chiyoda-ku, Tokyo 100-8901

Tel: 011-81-3-3501-9255 Fax: 011-81-3-3501-6799

www.miti.go.jp

Institute for Building Energy Conservation (IBEC)

4-5 Ni-bancho, Chiyoda-ku

Tokyo, 102-0084

Tel: 011-81-3-3222-6681 Fax: 011-81-3-3222-6696

#### Appendix G

# **→** Product and Exportability List

Material Name	Section	Exportability Rating
Exportability Rating	$\mathcal{O}$	
Adhesives, Glues and Mortars Air Barrier Materials Aluminum Siding, Soffits and Fascia	Air and Moist	
if outside fire zone	Siding, Soffits	
if outside fire zone	_	
Baseboards	Interior Trim	
Batch Solar Water Heaters	Domestic Wat	er Heating
Bathroom Accessories	Specialty Prod	lucts
Batt Insulation	Insulation	
Bifold Doors	Interior Doors	
Brick Fencing	Landscaping	
Brick Slices, Siding, Soffits and Fase	cia Siding, Soffits	and Fascia

#### Material Name Section Exportability Rating

#### Exportability Rating 1, continued

	.Ventilation and Filtration
	.Specialty Products
Fasteners for Roof Systems	.Ventilation and Filtration
Fibreglass Windows and Doors  if installed outside fire zones  and in northern Japan	.Windows and Exterior Doors
Fingerjoint Mouldings	Interior Trim
Full Brick Siding, Soffits and Fascia	.Roof Coverings
Gazebos	.Landscaping
Hardboard Siding, Soffits and Fascia	.Landscaping
if outside fire zone	Siding, Soffits and Fascia
Home Care and Rehabilitation	Specialty Products
	.Electrical
Insulation Fasteners	.Insulation
Joint and Air Sealing Materials	.Landscaping
	.Specialty Products
Mailboxes	.Specialty Products
Medium Density Fibreboard	.Interior Trim
Membrane Eaves Protection	.Roof Coverings
Moisture Barrier Materials	.Air and Moisture Barriers
	.Framing
Juoi and voiame das cuillui l'illeis	. vonulauon anu l'Iluauon

#### Material Name Section Exportability Rating

#### **Exportability Rating 1, continued**

Paints Pre-cut Framing Pre-finished Mouldings Pre-formed Metal Siding, Soffits and Fasc if outside fire zone Pressed Cement or Clay Tile Pressure Treated Lumber	.Interior Trim       1         .Coatings and Wallcoverings       1         .Framing       1         .Interior Trim       1         ia       .Siding, Soffits and Fascia       1         .Roof Coverings       1         .Framing       1         .Interior Doors       1
Ridge Vents	.Insulation
Sheet Metal Roofing	.Framing       1         .Roof Coverings       1         .Cabinetry       1         .Plumbing       1         .Siding, Soffits and Fascia       1         .Plumbing       1         .Interior Doors       1         .Interior Doors       1         .Flooring       1         .Stairs and Handrails       1         .Interior Trim       1         .Insulation       1         .Coatings and Wallcoverings       1         .Stairs and Handrails       1
Trades Training	.Plumbing1 .Coatings and Wallcoverings1 .Drywall1 .Cabinetry1
Underlay Materials	.Specialty Products
Vinyl Siding, Soffits and Fascia  if outside fire zone	.Flooring
Wall Panelling and Wainscotting Wire Shelving	.Landscaping.1.Interior Trim.1.Specialty Products.1.Siding, Soffits and Fascia.1

#### **Material Name**

#### Section

#### **Exportability Rating**

#### •••

# Exporting Canadian Housing Products and Systems to Japan

#### **Exportability Rating 1, continued**

Wood and Aluminum-Clad	
Windows and Doors	
if installed outside fire zones	
and in northern Japan	.Windows and Exterior Doors
Wood Fencing	.Landscaping1
Wood Shelving	.Specialty Products
Wood Veneer Doors	.Interior Doors

#### **Exportability Rating** ②

Active Solar Water Heaters Domestic Water Heating 2 Air Source Heat Pump Water Heaters Domestic Water Heating 2 Air Source Heat Pumps Air Conditioning 2 Air Source Heat Pumps Space Heating 2 Aluminum Fencing Landscaping 2 Aluminum Siding, Soffits and Fascia
if inside fire zone
Bathtubs and Bath Enclosures
Cast-in-Place Concrete
if inside fire zone
Law of Japan (BSL)
Dampproofing Materials.Foundations.2Decorative Mouldings.Specialty Products.2Design and Field Tools.Stairs and Handrails.2Designs and Options Packages.Design and Planning.2Ductless Split Systems.Air Conditioning.2
Electric Resistance Boiler
Heating
Fasteners
if in hot, humid climatesWindows and Exterior Doors.2Fluorescent LightingElectrical.2Foamed-in-PlaceInsulation.2

# Material Name Section Exportability Rating

#### Exportability Rating 2, continued

Gable VentsSpecialty Products2GB-F (Fire Resistant Drywall, Type-X)Drywall2GB-R (Standard Drywall)Drywall2GB-S (Water Resistant Drywall)Drywall2Geothermal or Ground Source Heat PumpsAir Conditioning2Geothermal or Ground Source Heat PumpsSpace Heating2
Hardboard Siding, Soffits and Fasciaif inside fire zone.Siding, Soffits and Fascia.2Heat Recovery Ventilators.Ventilation and Filtration.2HOT2000 Energy Analysis Software.Air Conditioning.2HOT2000 Energy Analysis Software.Domestic Water Heating.2HOT2000 Energy Analysis Software.Space Heating.2HOT2000 Energy Analysis Software.Ventilation and Filtration.2HOT2000 Energy Analysis Software.Specialty Products.2House Numbers.Space Heating.2Humidifiers.Space Heating.2Hydronic Radiant Floor Heating.Space Heating.2
Insulated Modular Concrete Form Systems
Kit or Panelized Houses.Framing.2Kitchen Cabinets.Cabinetry.2
Loose Fill Insulation
Low-Intensity Electric Radiant Ceiling Heating
Ceiling Heating.Space Heating.2Natural Gas-Powered Heat Pump Units.Air Conditioning.2Natural Gas-Powered Heat Pumps.Space Heating.2Packaged Heat Pump Units.Air Conditioning.2Packaged Heat Pump Units.Space Heating.2Panel Systems.Framing.2Plans Libraries.Design and Planning.2Pocket Doors.Interior Doors.2Portable Cooling Systems.Air Conditioning.2Pre-cast Concrete.Foundations.2Pre-engineered Trusses.Framing.2Pre-Formed Metal Siding, Soffits and Fascia
Ceiling Heating.Space Heating.2Natural Gas-Powered Heat Pump Units.Air Conditioning.2Natural Gas-Powered Heat Pumps.Space Heating.2Packaged Heat Pump Units.Air Conditioning.2Packaged Heat Pump Units.Space Heating.2Panel Systems.Framing.2Plans Libraries.Design and Planning.2Pocket Doors.Interior Doors.2Portable Cooling Systems.Air Conditioning.2Pre-cast Concrete.Foundations.2Pre-engineered Trusses.Framing.2Pre-Formed Metal Siding,

#### **Material Name** Section **Exportability Rating** Exportability Rating 2, continued Ridge Vents Vinyl Siding, Soffits and Fascia Vinyl Windows and Doors Wood and Aluminum-Clad Windows and Doors Wood Siding, Soffits and Fascia ...... **Exportability Rating** (3) Asphalt Shingles Fibreglass Windows and Doors

#### Exportability Rating 3, continued

Gas-Fired Forced Air Furnace
Intercom Systems
Kitchen Waste Disposers
Metal Windows
Nails
Oil-Fired Boiler       .Space Heating       .3         Oil-Fired Furnace       .Space Heating       .3
Photovoltaic Systems.Electrical3Plastic Drainage Pipe.Plumbing3Plastic Water Supply Pipe.Plumbing3Point-of-Use Portable Space Heaters.Space Heating3Pumps.Plumbing3
Single-Ply Membrane Materials Roof CoveringsSliding Doors (Fusuma) Interior DoorsSwitches and Receptacles Electrical
Toilets  if not imported for personal use Plumbing
Vinyl Windows and Doors  in fire zones
Walls (Retaining) Landscaping 3 Washing Machines Electrical 3 Water Filtering Specialty Products 3 Water Softening Equipment Specialty Products 3 Wiring and Cable Electrical 3 Wood and Aluminum-Clad Windows
and Doors  in fire zones



I wish we'd had this book when we first went to Japan! When we made the decision to test the Japanese market, it was very tough to find the information we needed. This would have saved us hours of research. It will certainly be a real help to any new companies looking at the Japanese market—but also to anyone who's been in Japan for a while. There's always something new worth considering! Great job, NRCan! Jeff Armstrong

President, DAC International Inc.

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						E-mail: buildingpu	JDSWnrcan.gc.ca	