

CARIBOO SPINDLES LIMITED

BUSINESS PLAN 2005

Prepared by:

Wade Bai
Ryan Clark
Mike Lodge
Christian Lorbach
Karen Schening

8 April 2005

Table of Contents

| | |
|---|-----------|
| Executive Summary..... | 2 |
| 1.0 Management and Company Profile | 3 |
| 1.1 Introduction..... | 3 |
| 1.2 Description of Company | 3 |
| 1.2.1 Mission Statement..... | 4 |
| 1.2.2 Vision Statement..... | 4 |
| 1.2.3 Value Statement..... | 4 |
| 1.3 Legal Issues..... | 5 |
| 1.4 Management Organization..... | 5 |
| 2.0 Product Description..... | 6 |
| 2.1 Spindles..... | 6 |
| 2.2 Comparative Advantages | 7 |
| 2.3 Target Markets | 7 |
| 2.4 Competitive Advantages..... | 7 |
| 2.4.1 Location..... | 7 |
| 2.4.2 Forest Stewardship Advantages..... | 8 |
| 2.5.1 Forest productivity..... | 8 |
| 2.5.2 Mule Deer Habitat..... | 8 |
| 2.5.3 Sustainable Forest Products..... | 8 |
| 2.6 Future Opportunities..... | 9 |
| 3.0 Industry Overview..... | 9 |
| 3.1 Description & History..... | 9 |
| 3.1.1 Provincial..... | 9 |
| 3.1.2 National | 10 |
| 3.2 Trends & Projected Growth | 10 |
| 3.3 CSL's Fit in the Millwork Industry | 12 |
| 4.0 Marketing Plan | 13 |
| 4.1 Target Markets | 13 |
| 4.2 Marketing Mix..... | 14 |
| 4.2.1 Product | 14 |
| 4.2.2 Place..... | 15 |
| 4.2.3 Pricing | 16 |
| 4.2.4 Promotion..... | 16 |
| 4.2.5 Supply Chain Strategy..... | 17 |
| 4.3 Competition..... | 18 |
| 4.3.1 SWOT Analysis..... | 19 |
| 5.0 Operational Plan..... | 20 |
| 5.1 Strategy | 20 |
| 5.2 Location | 21 |
| 5.3 Labour Force | 21 |
| 5.4 Materials..... | 22 |

| | |
|--|-----------|
| 5.5 Production Plan | 22 |
| 5.6 Long-term Plans | 24 |
| 6.0 Financial Plan | 25 |
| 6.1 Capital Requirements..... | 25 |
| 6.2 Financing Plan..... | 25 |
| 6.3 Balance Sheet | 26 |
| References | 27 |
| APPENDIX A – Local Wood Products Competitors... | 28 |
| APPENDIX B – Balance Sheet | 29 |
| APPENDIX C – Pictures of CSL Spindles | 30 |

List of Figures

| | |
|---|-----------|
| Figure 1 Spindles used as interior railings (left) & Spindles used as exterior railings (right) BWCW, 2005)..... | 6 |
| Figure 2 Value of National Millwork Industry shipments from 1993-2002. (Reproduced from NAICS-Canada 2005) | 11 |
| Figure 3 Net Revenue in the National Millwork Industry from 1993-2002. (Reproduced from NAICS-2005) | 12 |
| Figure 4 Proportion and Size of Millwork Firms in B.C. (NAICS-Canada 2005)..... | 13 |
| Figure 5 Diagram representation of The Spindle Maker Machine..... | 23 |

List of Tables

| | |
|---|-----------|
| Table 1 CSL Labour Force Salaries..... | 21 |
| Table 2 Harvesting Costs | 22 |
| Table 3 CSL Capital Requirements. | 25 |
| Table 4 CSL Balance Sheet..... | 26 |

Executive Summary

Cariboo Spindles Limited (CSL) is a new secondary wood products company operating out of the Williams Lake, British Columbia. This business opportunity arose in response to an ecological issue in the University of British Columbia's Alex Fraser Research Forest (UBC AFRF). The UBC AFRF is required to harvest slow-grown Douglas-firs to create mule deer winter range habitat and improve natural forest ecological processes. The wood normally would be used for fuel, but CSL will use the harvested wood to create a value-added wood turned product.

CSL will mainly produce railway banisters and outdoor posts but will diversify by producing other wood turned products such as utensil handles, spice shakers, headboards, table and chair legs. This diversification will mitigate the risk of relying on one product. Industry research has shown that CSL can attain a share of the increasing millwork industry. Opportunities also exist at expanding into the rest of Canada and into the western United States. Currently, there is an increase in housing starts in BC, especially in the Greater Vancouver – Whistler corridor, and therefore target markets include BC home and log home manufacturing industries. The other target market is large do-it-yourself retail stores (i.e. Home Depot).

CSL will have an ownership group, a general manager and a flat structured team of labourers, marketers, accountants, and other necessary staff who will produce cost-effective, high quality wood products. Furthermore, CSL will employ financial experts and industry leaders as consultants on a regular basis. These measures, combined with constant communication with staff at the UBC AFRF and our buyers, will ensure a good working relationship between all parties, which will be the foundation of CSL's success.

The products are unique because they are made from durable and aesthetically pleasing Douglas-fir species. Another differentiation from the competitors is the wood will be marketed as promoting sound forest management that improves native mule deer habitat.

As CSL becomes established in the BC marketplace, it is expected that its sales volume and profits will steadily increase over time. Furthermore, the 2010 Winter Olympics will also provide an increase in profits and markets. Current projections show a net profit of \$21,417 after the second month of operations.

1.0 Management and Company Profile

1.1 Introduction

Cariboo Spindles Limited (CSL) is a Williams Lake, British Columbia (BC) based secondary manufacturing wood products company that specializes in producing high-quality wood products from local suppliers. The company is a result of the need to find a use, other than for fuel, for the slow-grown, small diameter Douglas-fir trees at the University of British Columbia's Alex Fraser Research Forest (UBC AFRF). The implementation of the Cariboo-Chilcotin Land Use Plan (CCLUP) in 1996 allows for commercial thinning of Douglas-fir trees to improve mule deer winter ranges and to reduce fire potential. UBC AFRF accommodates the CCLUP mandate and, as a result, must find a viable end product that covers the cost of harvesting the expensive Douglas-firs. See the website: <http://farpoint.forestry.ubc.ca/FP/> for a detailed examination of the problem. The following is CSL's business plan which proposes a solution to the economic and ecological problem that is occurring at UBC AFRF. CSL will produce wood turned products for home builders and large retail chains in BC, Canada and the western United States.

1.2 Description of Company

Cariboo Spindles Ltd is located between Williams Lake and the UBC AFRF. The primary goal of CSL is to develop a viable secondary manufacturing company of high quality spindles. Inherent with this goal is improving wildlife habitat, reducing the fuel load at the UBC AFRF, improving the natural forest processes, creating long-term sustainable employment for the local communities and creating a market for a resource that would otherwise be infeasible.

1.2.1 Mission Statement

CSL promotes the well being of our customers, employees, and the ecological diversity of our Forest Ecosystems by producing a product that is based on the removal of an undesired species. Production of this product provides social, economic and ecological stability to our operating area.

1.2.2 Vision Statement

To lead by example in the BC forest Industry as:

- As ecological sound company with very high environmental stewardship standards
- A producer of a high quality product utilizing a source of fiber that has to be removed to provide mule deer winter range habitat
- Provide local social, economic and environmental stewardship
- Minimize impacts to environment
- Provide future generations with increased social, environmental and economic well-being

1.2.3 Value Statement

CSL believes in the following Values:

- Respect
- Safety
- Environmental Stewardship
- Equality
- Integrity
- Honesty

All employees of CSL and any business relationships will be treated with these values, and in turn expect to be treated the same.

1.3 Legal Issues

CSL will work cooperatively with the UBC AFRF to ensure that a continued supply of raw material will be available. CSL will pay the UBC AFRF a royalty for access to their timber and we will also cover the harvesting costs. Therefore, we will maintain a limited partnership with the UBC AFRF.

1.4 Management Organization

As CSL is a medium, locally owned and operated company, we will operate as a horizontally integrated company by reducing most levels of management. We will maintain a working relationship with Ken Day, manager of the UBC AFRF to ensure a continued supply of Douglas-fir sawlogs. The management organization will be comprised of an ownership group, a general manager and six divisions. These divisions are:

- Manufacturing (10 –14 full time employees)
- Mill maintenance (1 full time employee)
- Procurement and Marketing (1 full time employee)
- Accounting and Reception (1 full time employee)
- Shipping and Receiving (1 full time employee)
- Resource and Development (1 full time employee)

The ownership group will be the authors of this business plan. They will ensure the company remains profitable and expand operations and invests wherever feasible. The general manager will be responsible for all human resource issues and will manage the

day-to-day operations of all facets of the business. Each department will have their respective roles but will report to the general manager.

2.0 Product Description

2.1 Spindles

CSL will produce high quality spindles that are made to order by tailoring the product to meet the needs of each buyer. Buyers can choose between a wide range of designs and patterned spindles to basic blank spindles. Uses of these products include: chair and table legs/backs, stair banister posts, lamp and patio posts, headboards and bed frames, spice shakers and wooden utensils. Each product can be customized and will be available in various lengths and widths.

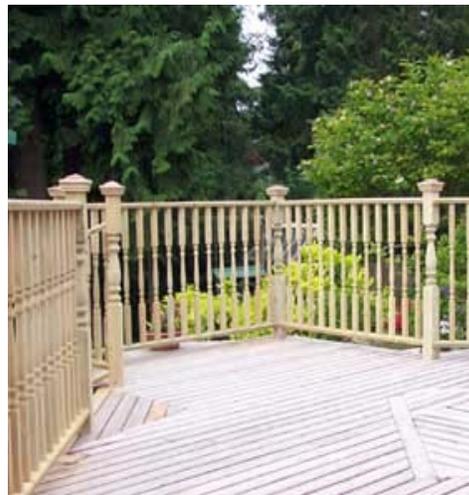


Figure 1 - Spindles used as interior railings (left) & Spindles used as exterior railings (right) BWCW, 2005)

2.2 Comparative Advantages

While spindles are not a new product, the use of slow-grown Douglas-fir is a new source of raw material in spindle production. We expect to create a niche market by producing highly detailed and visually appealing spindles for the residential construction industry.

2.3 Target Markets

Our primary target market will be BC's log home and home building industries. There is a growing demand for custom designed log homes and our product will contribute value to the finished log home. Each log home builder will provide CSL with specifications of the spindle type needed.

CSL will produce a pre-made product mix for the other target market of large DIY retail stores but will also target interior designers, independent carpenters and smaller retail stores. Section 4.0 provides a detailed description of each target market.

2.4 Competitive Advantages

2.4.1 Location

The proximity to wood supply and labour pool makes Williams Lake suitable for CSL's production facility. Another advantage of this location is it is the only spindle producer in the region and is only five hours away from large markets (i.e. Vancouver & Whistler), and is conveniently located along a railway and a major highway for easy shipping of our products.

2.4.2 Forest Stewardship Advantages

CSL will market the product as coming from a source which promotes sustainable forest practices. This advantage results in environmentally conscious consumers that will pay a premium for this product.

2.5.1 Forest productivity

The state of the current forest type is that of an unhealthy forest that is not functioning as it should ecologically. Once we begin removing individually selected Douglas-firs from this area, the residual growing stock can better utilize the site productivity potential on these moisture limiting sites. This will not only result in larger, healthier trees for future harvests but it will significantly reduce the threat of insect and pathogen damage, as well as the risk of a serious fire.

2.5.2 Mule Deer Habitat

Commercially thinning these forest types will result in improved conditions for mule deer winter range. The larger, more productive trees that will result from commercial thinning will perform much better at snow interception and as food sources than the current stand. The increased space below the forest canopy will also provide for much easier travel corridors for mule deer.

2.5.3 Sustainable Forest Products

Our products come from a renewable resource and are harvested in such a way that they minimize negative impacts of logging practices. In addition, wood has been proven to be

the least damaging product to the environment when compared to wood substitutes such as steel, plastics and cement.

2.6 Future Opportunities

CSL will focus their products to the BC market before expanding to other areas of Canada and into the western United States. We will target the established home builders first and then determine the appropriate course of action to expand into other markets. Of particular interest, is the potential to become a supplier to the increased housing starts in the Whistler-Vancouver areas since the announcement of their right to host the 2010 Winter Olympic Games.

3.0 Industry Overview

3.1 Description & History

3.1.1 Provincial

Millwork companies that produce turned wood products such as stair and deck spindles belong to the industry of secondary wood manufacturers or value-added wood products. Other business types in this industry include remanufactured products, engineered wood products, cabinets, furniture, pallets, roof shingles, panelboard and other wood products. Millwork in B.C., compared to other business types, is relatively small and is comprised of a few small business and some larger companies. (See Appendix A for a list of similar wood products companies in B.C.) “*The structure and economic contribution of secondary manufacturing in British Columbia 1990 – 1999*” states the majority of millwork firms are located in the Lower Mainland (84) and the rest are situated in the interior (37).

3.1.2 National

The North American Industry Classification System-Canada (NAICS) places CSL in the industry classification of ‘Other Millwork’. This group encompasses companies primarily engaged in millwork that use woodworking machinery, such as planers, lathes and routers to shape wood. It describes this industry as having 778 established millwork firms in Canada. Ontario has the majority of established companies (32.8%), followed by Quebec (28.4%) and British Columbia (20.6%).

3.2 Trends & Projected Growth

The value-added industry in BC is one of the fastest growing industries in the province. A Canadian Forest Service study stated that sales of this industry in 1999 accounted for \$3 billion of BC’s total exports and is projected to double in less than seven years. Furthermore, information from NAICS illustrates that the value of production is steadily increasing. Figure 2 illustrates millwork industries manufacturing shipments increasing from \$910.4 million in 1993 to \$3.3 billion in 2002. The value added is a measure of net output (i.e. of gross output minus the purchased inputs - such as cost of materials and supplies and of fuel and electricity), which has been embodied in the value of the product. In contrast to the measure of total shipments, value added provides some insight into the degree of transformation which occurs within industries.¹

¹ http://strategis.ic.gc.ca/canadian_industry_statistics/cis.nsf/IDE/cis321919

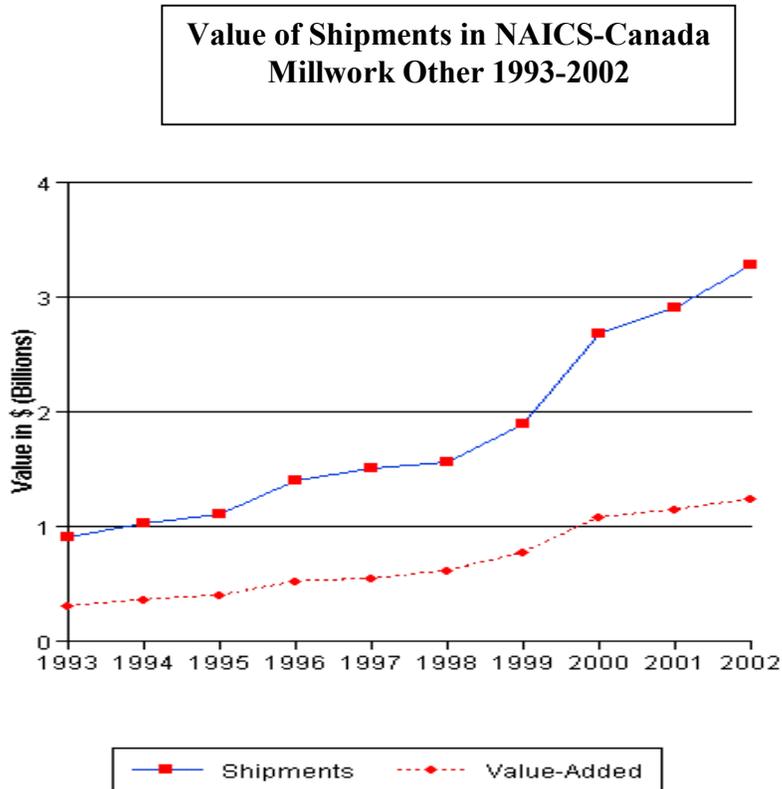


Figure 2 - Value of National Millwork Industry shipments from 1993-2002 (Reproduced from NAICS-Canada 2005).

Another trend in the millwork industry is the steady increase of net revenue between 1993 and 2002, illustrated in Figure 3. Net revenues in this industry have increased from \$120.8 million in 1993 to \$700.5 million in 2002 or averaging 21.6% annually. The steady increase of shipments and net revenue describes an industry that will continue to grow and be profitable in the future. The increase in shipments is caused from developed export markets and captured consumer demand illustrated by increased revenue as a function of patterns of consumption. The increasing net revenue also shows that the companies in this industry are very successful and have large profit margins. Large profit

margins in an industry are the signal that resources (i.e. CSL) can profitably be moved into the industry.²

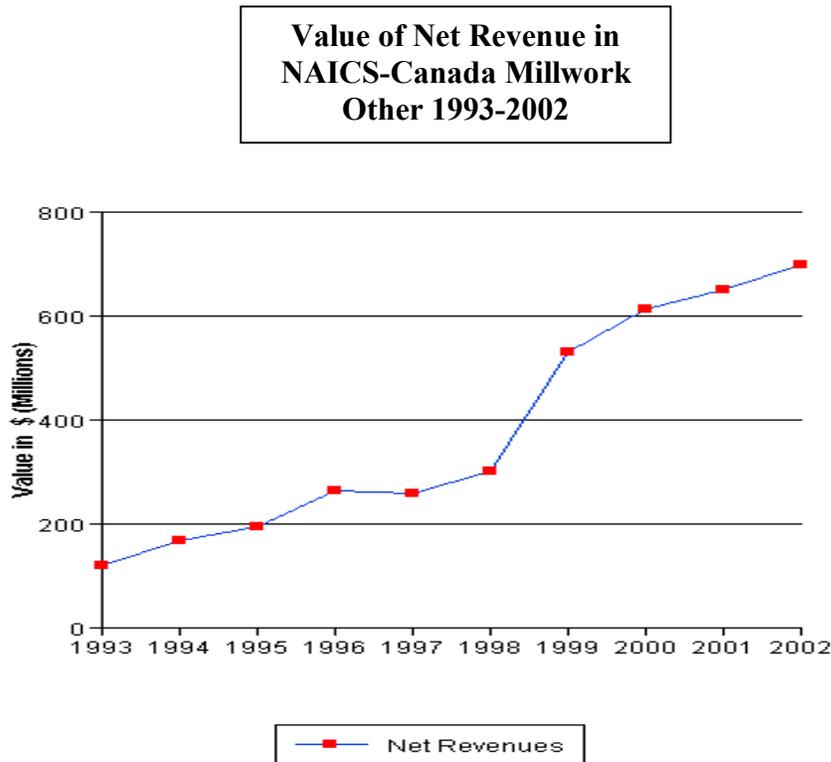


Figure 3 - Net Revenue in the National Millwork Industry from 1993-2002 (Reproduced from NAICS-2005).

3.3 CSL's Fit in the Millwork Industry

Prosperity in any industry results from firm level choices that produce distinctiveness, not from replication.³ CSL is different from established wood turned/millwork firms because our products are made from unique wood species and promote sustainable forest management. Most firms in the industry utilize tree species such as hemlock, pine and cedar. We only use slow-grown Douglas-fir which exhibit high durability and aesthetic value. Furthermore, the harvesting of Douglas-fir contributes to increasing Mule Deer

² Lipsey, R.G. & C.T. Regan. 2001. Microeconomics. 10th Canadian Edition. Pp 165

³ Porter. M.E. & R.L. Dean. 2000. Canadian Competitiveness: Nine Years after the Crossroads. Pp 1

habitat in the region. The distinction of species choice and sustainable forest management gives our firm a competitive advantage over other firms.

CSL fits into the industry as a small sized firm because of the amount of available supply of wood and the economic signal for small firms described in section 3.2. Figure 4 shows the breakdown of firm size in B.C., the majority of firms are in the small category (108 firms) and the micro category (53). In conjunction with Figures 2 and 3, the increasing net revenue trend demonstrates that CSL can successfully enter the marketplace and that there is a need for this size of firm.

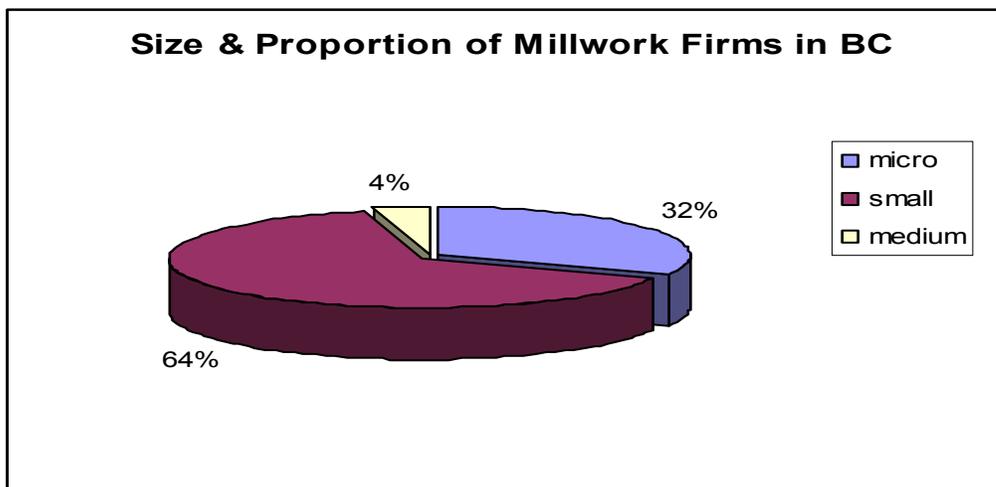


Figure - 4 Proportions and Size of Millwork Firms in B.C. (NAICS-Canada 2005).

4.0 Marketing Plan

4.1 Target Markets

Our Target Market includes a fairly wide variety of customers. Our products will be used together with other similar home wood products such as finishing in log homes. Our large-scale customers will be based throughout North America's large urban centers, such as the Greater Vancouver Area, and anywhere else where large DIY box stores have

locations. Our small-scale customers will be based throughout the Province of BC, where log home builders and home building companies are based. We plan to market to all areas of BC where homes are being built in the first few years, including all areas of business opportunity possibilities. We recognize that we do not have the capabilities to mass produce our products at present, but are planning to expand in the future.

Our primary market is one which includes home builders, large DIY stores, and log home builders who are employed in the home building industry and are looking for a locally produced product which will add the beauty of our tight grain Douglas-fir to any home or home furnishing.

4.2 Marketing Mix

4.2.1 Product

The main product being produced by CSL is high quality Douglas-fir spindles, made to order and produced in a wide variety of random lengths. Although CSL does produce random lengths, the majority of our spindles are produced on a made-to-order basis. All of our wood spindles show the attributes of the Douglas-fir used. This Douglas fir has very tight end grain displaying excellent strength and durability. Some of the uses of CSL include:

- Furniture legs
- Outdoor Posts
- Other uses customer want
- Stair Bannister Posts
- Wooden Utensils
- Spice shakers
- Chair Backs
- Bed frames and headboards

Along with the pre-designed spindles, CSL will also be producing blank spindles in various lengths. These blank spindles will be available to customers who would like to make their own designs. Blanks will be made to order in most cases, but a small inventory will be kept for various reasons.

4.2.2 Place

CSL's operations start with timber harvesting at the UBC AFRF and end with the distribution of our spindles throughout our supply chain. CSL's target market is DIY chain outlets, home builders, and log home builders. These markets are known as intermediaries, and include:

- Log Home Builders
 - We feel that there are enough log home builders in BC, more specifically, the interior of BC, that there is potential to enter into agreements with these companies. Working together with these companies would not only be beneficial to CSL, but more importantly, we would be providing these companies with products that would diversify their product line.
- Home Builders
 - We feel that home builders will be a large part of our revenues. Whether home builders buy our products directly from us, or from DIY stores, we feel they will come back time and time again. Personal sales have been proven to be the most effective method of reaching your target market (Kozak, 2005). We feel that this method of selling would be most beneficial to CSL in this type of market. Once our product has been in the marketplace for a short period of time, and proven itself, home builders will start to deal with CSL directly, and our product will start to market itself through word-of-mouth.
- Specifiers
 - To reach markets in major urban centers, getting architects to use our spindles would be the best method. We feel that the best way of reaching architects would be to showcase our products at tradeshow and home renovation showcases.

- DIY Chain Outlets
 - We plan to have a large part of our revenue being generated from sales at these types of stores in the future. We would be very interested in providing these stores with the majority of our business knowing that they have stores all over North America and the world in some cases. We feel that our product would market itself after some time and by providing these stores with our products, they would possibly be reaching all corners of the globe.

4.2.3 Pricing

Our prices are relative to the prices of other spindle products throughout North America.

We feel that we will be able to charge a premium for our products because of their unique properties, such as:

- Strength
- Environmental Forest Practices
- Aesthetic Value
- High Quality Service

Because of these properties, we feel that customers in our target markets will pay premium prices for our products because they will be getting added value from the products in return.

4.2.4 Promotion

As mentioned above, personal sales are the most effective way of selling products.

Promotion and marketing of our products will rely heavily on this method. Another very promising approach involves promoting our products at tradeshow. We will be targeting our specific buyers at these tradeshow. Another aid, used industry wide, is the wood promotion network. This network promotes wood products throughout North America and campaigns against the use of wood alternatives such as concrete, plastics and steel.

By advertising our products here, we would be accessing a large number of potential

buyers who visit the site regularly. Communication and promotion will also be increased by implementing the following strategies:

- Showcasing our products, not only just the spindles, but the spindles in service with the various home builders and log home builders using them.
- Developing good relationships with buyers, both in the primary and secondary manufacturing sectors.
- Make use of new technology and develop a website where all of our products can be viewed and purchased.

We feel that our customers will provide long-term financial stability to CSL because they will continually buy from us. There is also a huge growth in the number of housing starts in BC. Vancouver-Whistler will be hosting the 2010 winter Olympics and we feel that this is a huge opportunity for our products to be showcased in homes throughout BC, but more importantly the lower mainland and Whistler. Visitors throughout the world will be in the lower mainland and Whistler areas for the 2010 Olympics and having our products in place would be beneficial to CSL's growth.

4.2.5 Supply Chain Strategy

The potential market is very large, with the initial focus in BC, and future markets throughout Canada and the western United States. If agreements with large DIY stores are prepared and the demand starts to grow for CSL's products, a major economic expansion in the future will be feasible. For the moment, we are putting our main focus on local markets. In BC, there are a lot of local markets, as wood is widely used in home and log home buildings. In order to build the relationships with members of our supply

chains, we will be visiting them personally to make positive impressions and contacts, providing samples of our products.

4.3 Competition

The source of our wood is the UBC AFRF near Williams Lake. The Douglas-fir material that we are using is considered to be a problem in the area and will be available as raw material for many years to come. Because of this, there is a large supply and there are numerous competitors that could potentially have access to similar wood that CSL is utilizing. Most of the competitors in the area are small business much like ours, which specialize in numerous wood products. A list of the local competitors is provided in Appendix A. Of the local competitors, a few of them specialize in the same products that CSL will be producing. Most of the current competitors use different species that are widely utilized throughout the industry, but CSL utilizes slow grown Douglas-fir that has very distinct characteristics. See Appendix C for pictures of our products. There are some competitors throughout BC that produce similar products from different materials. The most commonly used of these is steel, which is not considered a threat to us as we are not competing with markets where steel would be a major substitute to our products. The aesthetic values of wood are also one of the major qualities that we will be using to promote our products, and the customers that we are trying to target wouldn't view steel as a substitute for wood.

4.3.1 SWOT Analysis

When designing a business plan, it is very useful to look at the competition and compare your business to theirs. To do this, we have put together a SWOT analysis. SWOT stands for: Strengths, Weaknesses, Opportunities and Threats. The SWOT analysis allows us to minimize our weaknesses and threats, while maximizing our strengths and opportunities in the marketplace.

Strengths

- High quality Douglas-fir products with unique characteristics
- Close proximity to processing facilities
- Sustainable management
- Harvesting provides increased Mule Deer winter range
- Unlimited supply source
- Basically no direct competition in the UBC AFRF area
- Harvesting equipment is very adaptable and can adjust to market demands

Weaknesses

- Distance from Greater Vancouver Area
- Enough fiber supply for other companies to start up
- Problem with waste removal
- High initial start up costs

Opportunities

- Housing boom in Greater Vancouver Area
- 2010 Winter Olympics
- Sustainable harvesting methods will assure public that AFRF is environmentally sound
- Expanding into new markets
- Removal of Douglas-fir provides mule deer winter range habitat

Threats

- Competitors that are closer to Greater Vancouver Area
- High harvesting costs
- Lower cost products in the market place
- Pressure for obtaining certification

CSL believes that the weaknesses and threats that are discussed above can be lowered through our initial marketing plan. CSL also believes that our sound ecological harvesting practices will allow us to charge a premium price for our products, lowering the effect of our main weakness, high start-up costs.

5.0 Operational Plan

5.1 Strategy

Our manufacturing strategy is to develop new machineries that will lower the intensive labour force that is required in spindle production. The machineries will be placed on a production line to maximize productivity. There will be two production lines: one for standard designs (commodity) and the other for custom designs.

Our labour force will be focused on producing a high quality product as time efficiently as possible. Workers will rotate through different jobs areas on the production line on a monthly basis to ensure that everyone has a clear understanding of the total process.

Management of our plant will be a flat organization, which allows access and input from all employees. Everyone will have to ensure that production, product, and the

environment are optimized. Management is there to supervise, delegate and monitor quality control.

5.2 Location

CSL is located between Williams Lake and the UBC AFRF in the province's Cariboo Region. This location benefits our company by being close to the log supplier, and reduces the transportation costs to the US market and the 2010 Olympic contractors.

The facility will be approximately 20,000.sq ft. Within this facility, sufficient office space will house management and other clerical staff. The location of the office will be high above the plant overlooking the whole process of the production. The rental for the facility will cost approximate \$70,000 annually.

5.3 Labour Force

Table 1 - CSL Labour Force Salaries.

| Position | Annual Salary |
|----------------------------|----------------------|
| General Manager | 70,000 |
| Marketing | 60,000 |
| R&D | 60,000 |
| Sales Manager (Accountant) | 60,000 |
| Production Manger | 45,000 |
| Cut-Off Saw Operator | 45,000 |
| New Machinery Operator(4) | 180,000 |
| Sander Operator (4) | 180,000 |
| Loader Operator | 45,000 |
| Forklift operator | 45,000 |
| CNC Operator | 45,000 |
| Mill Maintenance | 45,000 |
| Total | 880,000 |

5.4 Materials

Raw Material will be sourced from the overly stocked Douglas-fir forests of the UBC AFRF. The materials will be the thinned materials that are taken out of the woods on a selection harvesting system.

Logging the raw material will be expensive but government taxes and stumpage fees will defray a lot of the expense. According to Susan LeVan that “the volume of small diameter wood available to mills and would be mills is expected to explode over the next few years because of the interest in thinning public and private forests in the west to reduce the risk of wildfire.”

The logs will be transported by trucks from the UBC AFRF to CSL, which is located east of Williams Lake. Logging cost will be approximately \$51 /m³

Table 2 - Harvesting Costs

| | |
|---------------------------|-------------------------|
| Logging to Roadside | \$26 / m ³ |
| Loading and Hauling | \$20 / m ³ |
| Layout and Administration | \$4.75 / m ³ |
| Stumpage | \$0.25 / m ³ |

Over time, the cost of logging will be decrease because of the increasing volume of commercial thinned small diameter Douglas-fir that we will be requiring will decrease hauling costs.

5.5 Production Plan

The plant will have two lines: one for fast move flow with commodity design and the other with custom design. The two lines will have the same production procedures, thus

one of the lines requires more changes on the profile of the blade. The production is as follows:

1. Logs are dried
2. Sent to the cut-off saw for cutting into desired length.
3. The logs are sorted into small, medium, and large diameter classes.
4. The logs are then sent to the new machinery. The new machine will take 10 logs at a time and find each logs' center point and clamp the ends. There will be two sets of blades going across the fast rotating logs. The first blade will roughly cut the logs so that the leftover bark and some wood is gone, this is to minimize the effects of this material on the profile blade so that it won't dull too quickly. The second blade will cut the profile, turning logs into spindles.
5. The spindles are made and sent to the moulder to either square or round the ends.
6. The spindles are all sanded to produce a smooth surface

Innovation of new machinery will help to speed up the process. The creed Time =

Money will be understood by all employees.

The new machinery will combine both debarking and shaping of the spindles.

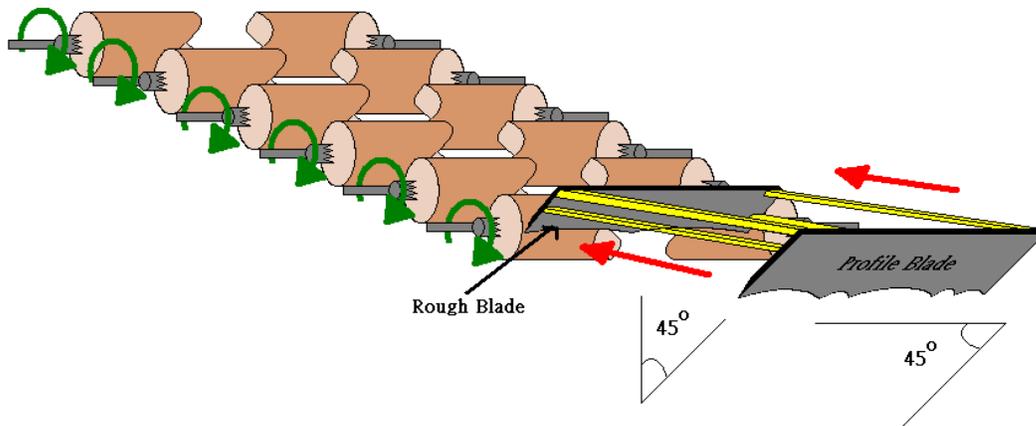


Figure 5 - Diagram representation of The Spindle Maker Machine.

The new shape will contain two blades, which are at 45 degree angles. The first will debark the log and the second blade will have some profile on which to cut the spindle shape out. The profile on the second blade can be changed with ease. The blade profiles are made by a CNC machine.

There will be two, 40 hour shifts for shift employees. Everyday, workers need to maintain a log book and record their total production for the day and make notes on anything the other shift would find useful. Management will routinely oversee daily production operations and read the logs see if there is an opportunity to improve operations. Regular communication between management and the manufacturing department will ensure all employees are up to date on the day-to-day activities and new initiatives within CSL. In addition, the computer will count how many spindles are made each day for future evaluations and for reasons of continually improving our operations.

5.6 Long-term Plans

The company's goal is to be the leading supplier of high quality wood spindles from small diameter to BC, Canada, the western United States markets and beyond, and to maintain responsible stewardship of the forest resources. This will be achieved through improving operations, technology, and marketing strategies.

6.0 Financial Plan

6.1 Capital Requirements

Table 3 - CSL Capital Requirements.

| The capital requirement for first year: | |
|--|--------------------|
| Machinery | \$1,900,000 |
| Working capital | Not available |
| 12 months' salary and wages | \$880,000 |
| Insurance | Unknown yet |
| Inventory (Sales) | \$3,765,000 |
| Log cost (500 stems/day) | \$25,500 |
| Blades (Profiles) | \$15,000 |
| Total working capital | |
| Miscellaneous | \$9,000 |
| Utilities, Rent and Office furniture | \$100,000 |
| Total | \$6,694,500 |

6.2 Financing Plan

CSL will require grants from both the provincial and federal government as well as acquire loans from private institutions. Grants can be obtained from Government through the Government of Canada website and are easily accessible.

The company is operated by a couple partners, one of them being the UBC AFRF.

However, the UBC AFRF will see their profits increase as our company expands, as CSL is paying them to harvest the timber on their lands. In the future, providing very positive

growth, we welcome anyone who is interesting to be a serious partner to possibly become a partner in CSL.

6.3 Balance Sheet

Table 4 - CSL Balance Sheet.

| | |
|---|------------------|
| Assets | |
| Current Assets | |
| Cash | 880,000 |
| Inventory (Sales) | 3,765,000 |
| Supplies | 9,000 |
| | |
| Fix Assets | |
| Machinery | 1,900,000 |
| Office equipment and building rent | 100,000 |
| Total Assets | 6,694,500 |
| Liabilities and Owner's Equity | |
| Current liabilities | 880,000 |
| Long term liabilities | 1,900,000 |
| Owners, equity | 3,904,000 |
| | |
| Total Liabilities and Owners' equity | 6,639,000 |
| | |

Based on table 4, you can see that after our first year, we are already reporting a higher asset base than our liabilities. Our sales figures are highly variable and will depend on the amount of every different product we sell. Our current monthly balance shows a net profit of \$21,417 (refer to APPENDIX B for a detailed breakdown of our balance sheet). Our bottom line profits are expected to significantly increase in following years as we become more established and increase our market share.

References

B.W. Creative Wood (BWCW), 2005. Quality Railing Systems: Interior and Exterior. Retrieved on 3 April 2005 at: www.bwcreativewood.com

Lipsey, R.G. & C.T. Regan. 2001. Microeconomics. 10th Canadian Edition. Pearson Education Canada Inc, Ontario.

Ng. V & C. Shell. 2002. British Columbia's Value-Added Wood Products Sector. Retrieved on 27 March 2005 at: www.strategis.gov.ca

Porter. M.E. & R.L. Dean. 2000. Canadian Competitiveness: Nine Years after the Crossroads.

Wilson. B., et al. 2001. The structure and economic contribution of secondary manufacturing in British Columbia, 1990-1999. Natural Resources Canada, Canadian Forest Service Information Report BC-X-390, Victoria.

Kozak, R.A. 2005. Lecture in Wood 465. 25 January. University of British Columbia, Vancouver, British Columbia.

APPENDIX A – Local Wood Products Competitors

Posts and Rails

Box Lake Lumber Products Ltd.
Erie Lake Cedar
Lone Wolf Forest Products
Princeton Wood Preservers Ltd.
Raintree Lumber Specialists Ltd.

Rosettes

Old Country Wood Turning Ltd.

Spindles

AAC Woodworking & Manufacturing Ltd.
Helgason Lumber Co. Ltd.
Mill Creek Wood Products Ltd.
Spindaleer Manufacturing Ltd.
Wilkerson Forest Products

Turned Products

AJ Forest Products Ltd.
Spanish Wood Manufacturing Inc.
Timber Products International Ltd.

Railings

Hamill Creek Timberwrights
Trimlite Canada Ltd.
Vanderhoof Specialty Wood Products

APPENDIX B – Balance Sheet

| Sales Plan | January | February | March | April | May | June |
|------------------------------|-----------------|---------------|---------------|---------------|---------------|---------------|
| Units sold | 0 | 0 | 500 | 500 | 500 | 500 |
| Dollar sales | 0 | 150000 | 150000 | 150000 | 150000 | 150000 |
| Total revenue | 0 | 150000 | 150500 | 150500 | 150500 | 150500 |
| Machinery costs | 1900000 | 0 | 0 | 0 | 0 | 0 |
| Raw material costs | 0 | 51000 | 51000 | 51000 | 51000 | 51000 |
| Overhead costs | 3000 | 6000 | 6000 | 6000 | 6000 | 6000 |
| Labor cost | 0 | 69583 | 69583 | 69583 | 69583 | 69583 |
| Utility and office furniture | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| Total costs | 1905500 | 129083 | 129083 | 129083 | 129083 | 129083 |
| Total profit | -1905500 | 20917 | 21417 | 21417 | 21417 | 21417 |

| Sales Plan | July | August | September | October | November | December |
|------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Units sold | 500 | 500 | 500 | 500 | 500 | 500 |
| Dollar sales | 150000 | 150000 | 150000 | 150000 | 150000 | 150000 |
| Total revenue | 150500 | 150500 | 150500 | 150500 | 150500 | 150500 |
| Machinery costs | 0 | 0 | 0 | 0 | 0 | 0 |
| Raw material costs | 51000 | 51000 | 51000 | 51000 | 51000 | 51000 |
| Overhead costs | 6000 | 6000 | 6000 | 6000 | 6000 | 6000 |
| Labor cost | 69583 | 69583 | 69583 | 69583 | 69583 | 69583 |
| Utility and office furniture | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| Total costs | 129083 | 129083 | 129083 | 129083 | 129083 | 129083 |
| Total profit | 21417 | 21417 | 21417 | 21417 | 21417 | 21417 |

Appendix C – Pictures of CSL Spindles

