

Calgary



24-0040720 | CRV-30678

The Calgary Advantage

Landed transportation costs to Calgary
and distribution costs for outbound traffic

3rd Edition 2024

24-0040720 | CRV-30678

In partnership with



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Executive Summary

The Calgary advantage

For businesses looking for a new location, Calgary provides a competitive advantage. This study looks at the many factors that go into setting up such an operation. Sourcing product from North American cities, supply chain costs from Asia, costs of warehousing and distribution are all considered. The results are clear. When compared to Vancouver, Calgary comes out on top.

Calgary is quickly becoming a preferred transportation hub. Forward-thinking companies such as Amazon, Walmart, Cisco, Canadian Tire, Home Depot, and FedEx have all set up distribution centres here. It is estimated that 7% of Calgary's labour force is employed in the transportation and warehousing industry, reflecting an increase from previous census data. For companies wanting to experience the Calgary advantage, many more opportunities await.

While inbound costs to transport containerized products to Vancouver are less expensive than to Calgary, factoring in warehousing and distribution costs gives Calgary a distinct overall advantage.



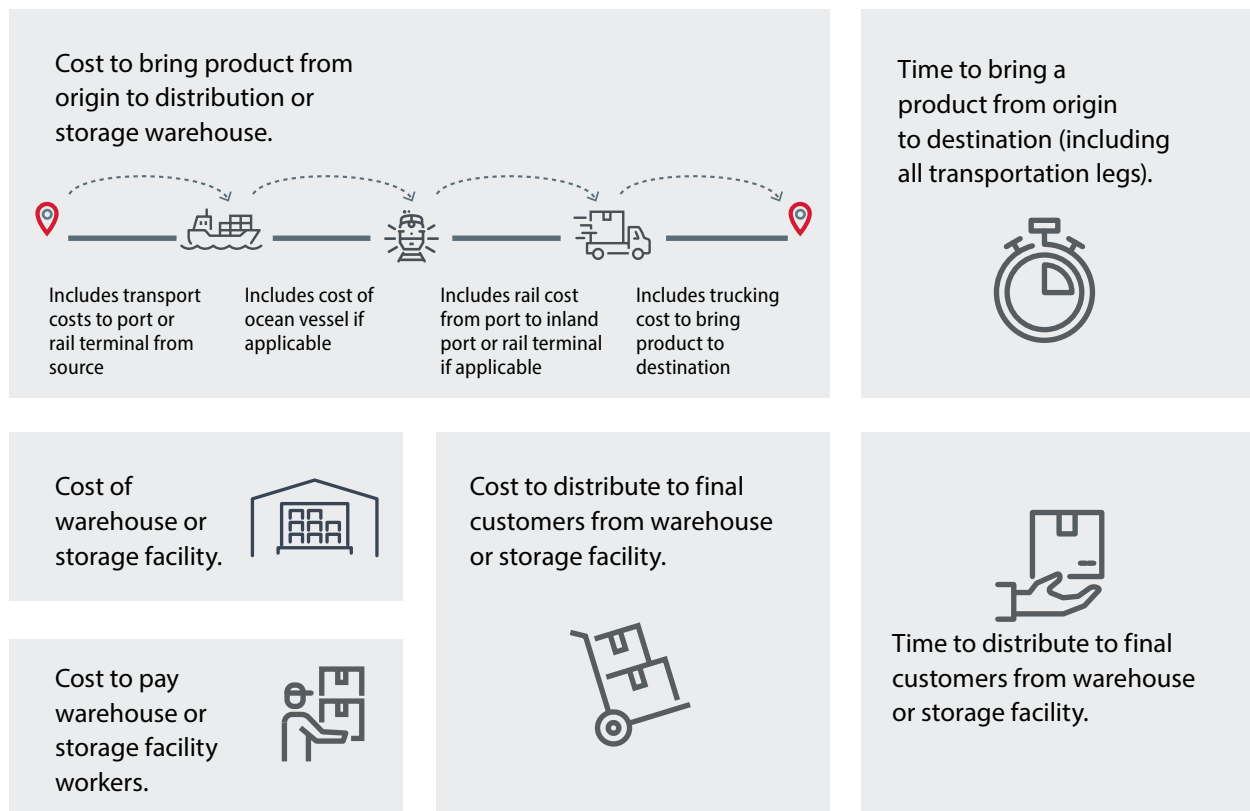
*Total landed cost scenario: warehouse, 1000 truckloads for outbound distribution.

Introduction

Choosing the best location

From a supply chain perspective, many factors go into choosing a location. The cost of moving the product inbound to the specific location is the first issue. The cost of buying or leasing property or a warehouse/distribution centre also needs to be considered. Other factors include the cost of final distribution to multiple locations and the availability and ease of moving workers to the location. Finally, the time required to get the product from the origin to the destination should be examined. All these variables should be considered when a business is choosing the best location.

When an organization looks at its entire supply chain, there are many factors to consider.



This report looks at these aspects with examples of each. It also analyzes the costs and estimated transportation times to each location, from Asian and European markets as well as the costs to distribute within Western Canada.

Supply Chain Costs

Ocean shipping from Asia and Europe

FULL CONTAINER LOAD (FCL)

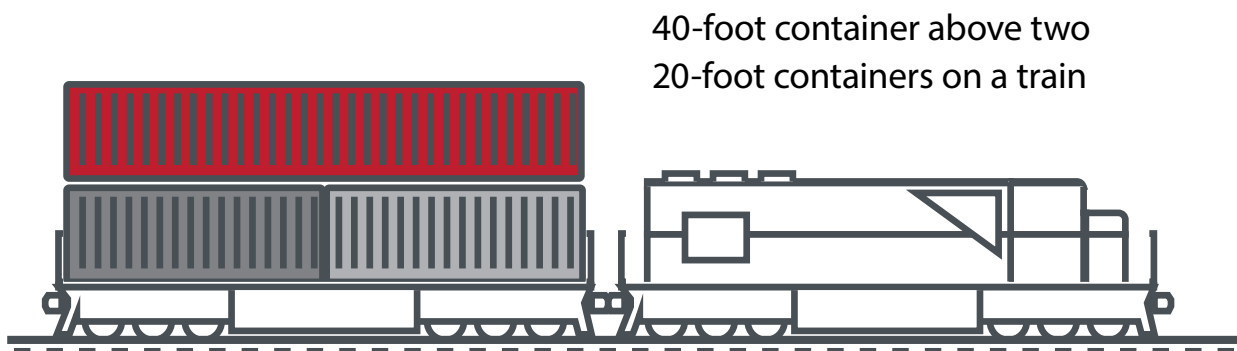
While the United States is Canada’s largest trading partner, many of the products for distribution in Canada originate in Asian markets. For products to enter Canada, they need to be transported by ocean vessels if they are shipped in large quantities (container loads or larger). Products can enter Canada in British Columbia through the Port of Vancouver or the Port of Prince Rupert, and in Eastern Canada from the Port of Halifax or the Port of Montreal. Products from foreign markets can also enter Canada via Ports in the United States. For this analysis, we will only be looking at ports within Canada.

Rates to Calgary

Research was conducted for rates to Calgary from a variety of Asian origins as well as one origin from Europe. These were compared with rates to Vancouver and are listed in **Figure 1**. The rates were quoted directly from three logistics companies that provided the rates to both Vancouver and Calgary.² The rates fluctuate based on the time of year and will rise at busier times such as November and into December for the holiday rush of shipments. The rates below are also for dry containers. For temperature-controlled rates (for food products), the rates were, in general, 15-25 per cent higher but were not provided by all parties for this study. These rates were sourced in July 2024 so are representative of non-peak season time shipping times.

FIGURE 1 Quoted rates from Freightos and logistics broker companies – July 2024

				Quoted average estimated rates (CAD\$)			
				20' container		40' container	
Origin city	Port city	Country	Via	Calgary	Vancouver	Calgary	Vancouver
Shanghai	Shanghai	China	Vancouver	\$ 10,671.39	\$ 9,273.53	\$ 12,819.55	\$ 11,704.82
Hong Kong	Hong Kong	China	Vancouver	\$ 10,160.38	\$ 9,236.08	\$ 12,479.33	\$ 11,591.57
Seoul	Busan	South Korea	Vancouver	\$ 10,086.40	\$ 9,376.28	\$ 12,471.11	\$ 11,602.53
Singapore	Singapore	Singapore	Vancouver	\$ 10,338.93	\$ 9,435.65	\$ 12,532.76	\$ 11,655.96
Kuala Lumpur	Port Klang	Malaysia	Vancouver	\$ 11,001.10	\$ 9,928.85	\$ 13,021.39	\$ 12,155.10
Kyoto	Osaka	Japan	Vancouver	\$ 11,436.76	\$ 10,686.91	\$ 13,821.47	\$ 13,518.25
Munster	Hamburg	Germany	Montreal	\$ 4,274.40	\$ 4,589.50	\$ 7,048.65	\$ 7,158.25



² These rates are converted to CAD\$ and are based on quotes for shipments in July 2024.

From actual origin to actual destination

These rates include the entire move from the actual origin to the actual destination. This means the container is picked up in the origin city by truck and then transported to the port (which could also include rail). It also includes the ocean carrier rate, and then for the Vancouver-destined products, includes a truck rate to place the container at a destination in Vancouver. For Calgary, it also includes a rail portion to transport the container from the Port of Vancouver to Calgary.

Obviously, it is less expensive to transport containerized product to Vancouver than to Calgary from Asian markets. The rail component adds an extra cost that Vancouver shipments do not have. This difference is an average of \$960 for 20-foot containers and \$820 for 40-foot containers from each of the Asian markets above. On the other hand, it is more expensive for products from Europe that enter Canada in Montreal, as there is a larger rail cost to Vancouver than Calgary (\$315 for 20-foot containers and \$110 for 40-foot containers).

FTL RATES FROM NORTH AMERICA

Full Truckload (FTL) rates from North American cities can fluctuate based on the fuel rates and time of year. They tend to be more expensive around November and December due to the Christmas rush, weather and truck availability. Figure 2 shows a list of rates from North American cities to both Calgary and Vancouver. These rates were sourced from Freightera and several logistics and trucking companies for shipments in June/July 2024. The rates are all represented in CDN\$ including current fuel surcharges.

The rates are all less expensive to Calgary except for San Diego. Houston had the same rate to both cities. This is based on a full truckload of dry product consisting of 20 pallets.

FIGURE 2 FTL rates from North American cities to Calgary and Vancouver (20 dry pallets)

FTL Trucking Rates	Calgary	Vancouver
Chicago, IL	\$ 4,352	\$ 5,890
Pittsburgh, PA	\$ 5,776	\$ 7,089
Atlanta, GA	\$ 6,646	\$ 7,545
Norfolk, VA	\$ 6,116	\$ 7,158
Houston, TX	\$ 5,612	\$ 6,015
Allentown, PA	\$ 5,849	\$ 7,037
Louisville, KY	\$ 5,040	\$ 6,202
San Diego, CA	\$ 4,807	\$ 4,084
Toronto, ON	\$ 5,418	\$ 6,800
Montreal, PQ	\$ 6,169	\$ 7,567
Winnipeg, MB	\$ 2,404	\$ 4,390

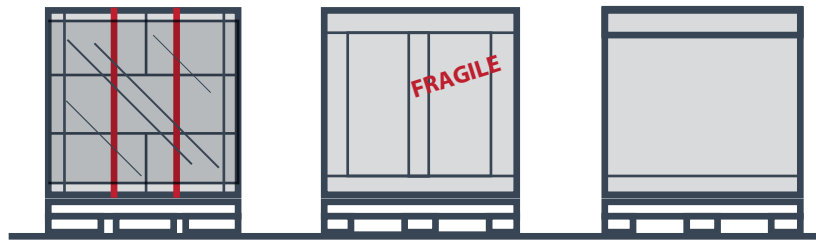
LESS THAN CONTAINER LOAD (LCL)

When shipping less than container loads, there is another option to ship. These shipments can be moved by ocean liner, rail and truck from Asian markets but they can also be shipped by air. LCL service tends to cost more relative to FCL service when comparing weight and volume, but the overall number is less than FCL shipments. These shipments are still shipped in containers but are sharing the space with other shipments. They must then be broken down or separated to be shipped to the destination. The separation can occur once the shipment arrives on land or can be completed closer to the destination. In the case of shipments to Calgary from Asia, the pallets, or skids (see Figure 3) can be taken out of the container in Vancouver and then trucked to Calgary. Or it can be delivered to Calgary and then delivered by truck if all the product in the container was destined for the Calgary region.

Estimated rates from Asia and Europe

Figure 3 shows estimated rates for LCL shipments from Asian and European markets to Calgary and Vancouver. The three best quotes were used for air rates but there were rates much higher than the average of the three best rates. These quotes were collected from interviews with logistics companies as well as some information from a rate comparison website³ as the rates for containers above. The size of the shipment quoted was two pallets totaling approximately 150 kg each.

³ <https://ship.freightos.com/search>



Samples of LCL shipments for air or ocean shipping

FIGURE 3 LCL rates to Calgary and Vancouver from Asian and European markets

Origin city	Port city	Country	Via (for ocean)	LCL Rates (CAD\$)			
				Ocean/Rail/Truck		Air LCL	
				Calgary	Vancouver	Calgary	Vancouver
Shanghai	Shanghai	China	Vancouver	\$ 1,307.14	\$ 1,159.26	\$ 5,123.04	\$ 4,654.98
Hong Kong	Hong Kong	China	Vancouver	\$ 1,252.38	\$ 1,133.25	\$ 6,094.37	\$ 5,078.06
Seoul	Busan	South Korea	Vancouver	\$ 1,472.06	\$ 1,505.61	\$ 7,408.27	\$ 5,437.89
Singapore	Singapore	Singapore	Vancouver	\$ 1,570.99	\$ 1,460.46	\$ 7,298.83	\$ 6,889.65
Kuala Lumpur	Port Klang	Malaysia	Vancouver	\$ 1,638.65	\$ 1,601.93	\$ 7,713.60	\$ 7,705.03
Kyoto	Hanshin Ports	Japan	Vancouver	\$ 1,930.19	\$ 2,052.99	\$ 6,660.00	\$ 8,067.00
Munster	Hamburg	Germany	Montreal	\$ 1,016.26	\$ 1,467.17	\$ 1,527.94	\$ 1,661.10

These rates are also from origin to destination and include delivery to the destination in either Calgary or Vancouver.

Ocean freight rates lower to Vancouver

Once again, the rates to Vancouver for the ocean freight is less expensive than Calgary. The rate, on average, is \$129.89 more for shipments to Calgary and is explained by the extra trucking or rail cost to get the product to the Calgary region. Calgary is less expensive than Vancouver for European shipments due to the extra distance of rail or trucking from Montreal to Vancouver compared to Calgary (\$85.12).

Air freight rates lower to Calgary

Surprisingly, the air freight rates to Calgary are, on average, lower than the rates to Vancouver despite being further from the origin cities in Asia.

The exceptions are Singapore, Seoul and Osaka. Calgary is, on average, \$105.82 less expensive than Vancouver. Calgary is also less expensive from Europe from the origin that was surveyed (\$236.78).

LESS THAN TRUCKLOAD (LTL) RATES FROM NORTH AMERICA

Shipments from North America to Calgary and Vancouver can have highly fluctuating rates based on backhaul opportunities and other shipments originating in the same region. **Figure 4** lists rates sourced based on the average of the three best quotes from Freightera and several logistics and trucking companies. Again, the rates are represented in CAD\$ including current fuel surcharges. It is important to note that there are significant accessorial charges for LTL shipments, based on the type of shipment. Although potential additional charges were not considered, the two most prominent ones are power tailgate and pickup or delivery appointment requirements. Logistics and trucking companies will post these charges in service schedules.

FIGURE 4 LTL rates from North American cities to Calgary and Vancouver (two dry pallets)

LTL Trucking Rates	Calgary	Vancouver
Chicago, IL	\$ 802	\$ 935
Pittsburgh, PA	\$ 907	\$ 1,013
Atlanta, GA	\$ 830	\$ 920
Norfolk, VA	\$ 938	\$ 1,126
Houston, TX	\$ 867	\$ 918
Allentown, PA	\$ 916	\$ 1,106
Louisville, KY	\$ 937	\$ 1,040
San Diego, CA	\$ 627	\$ 508
Toronto, ON	\$ 638	\$ 764
Montreal, PQ	\$ 734	\$ 884
Winnipeg, MB	\$ 369	\$ 517

The rates within Canada are less expensive to Calgary than Vancouver, except from San Diego. These shipments were based on two pallets (48" x 40" x 48" high) and weighing 650 pounds each.

Warehouse and distribution centre costs

One of the costs associated with running your supply chain is a warehouse or a distribution centre. You have the option to either rent or lease space or purchase a building and land for your business. Each choice has its benefits. While buying space requires a significant upfront investment, it can save you money in the long run and help mitigate the risk of rising operational costs over time, depending on the lease market. Experts in Vancouver report that, although vacancy rates are rising, the market for industrial property rentals remains unbalanced in favour of landlords, with the vacancy rate estimated to be around 2 per cent in early 2024. Anticipated interest rate cuts may increase demand for strata, but rental rates are expected to hold after aggressive increases in 2021 and 2022.⁴ Anecdotally, during interviews with commercial property agents, feedback is that areas on the outskirts of the Vancouver region have only very recently become minimally negotiable for rental rates.

Calgary industrial market experts, including Colliers Canada, Avison Young, and CBRE, report an estimated 5.0–5.5 per cent industrial vacancy rate in early 2024. According to Colliers' Q1 2024 Calgary Industrial Market Report: "The outlook for Calgary in 2024 is for a steady year of activity, with the highly competitive market conditions of 2021 and 2022 largely passed. Although there are only a handful of buildings under construction within the city limits currently, there are significant projects in the pipeline which are expected to break ground on construction this year, to be delivered in 2025. With healthy demand from occupiers and a slowed development pipeline, we expect the market to experience balance with the potential for vacancy to begin a downward trend by the year's end."⁵

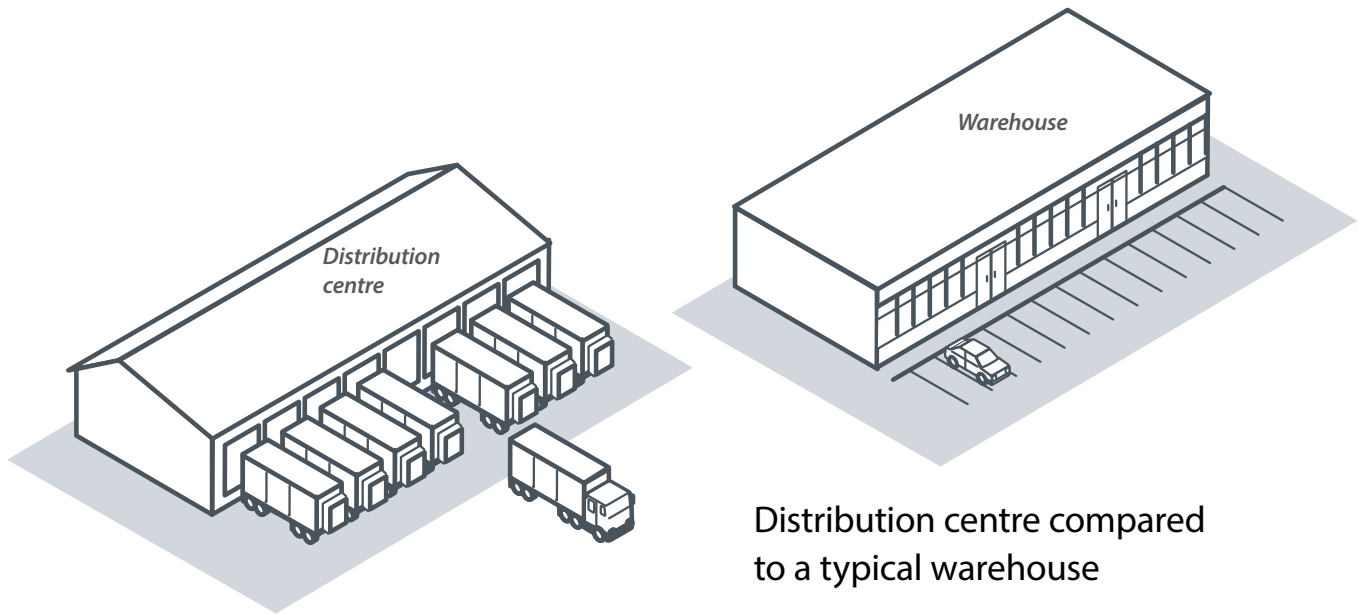
Calgary remains an attractive location for developers due to its relatively low prices compared to other major centres in Canada.

More opportunities in Calgary

Interviews with commercial real estate companies point toward more new, state-of-the-art and localized opportunities in the Calgary region than there are in the Vancouver region. Calgary has been experiencing a trend of building more distribution centres with more bay doors for trucks. These centres are built for higher inventory turn, located with access to high-traffic commercial vehicle lanes and typically built with tractor & trailer yard storage space. This is based on Calgary's location on the TransCanada Highway (east/west), Highway #2 (north/south) and the recently completed Highway 201 (Stoney Trail) which directs commercial vehicles around the high-density city traffic.

⁴ <https://www.avisonyoung.ca/fr/web/vancouver/industrial-market-report#:~:text=For%20the%20seventh%20consecutive%20quarter,remains%20in%20the%20favourof%20landlords.>

⁵ Calgary Industrial Market Report 2024 Q4 | Colliers (collierscanada.com)



Distribution centre compared to a typical warehouse

Calgary is a leading distribution hub

Calgary is perceived as a distribution centre hub with many companies setting up distribution centres within the region (Walmart, Costco, Home Depot, Princess Auto, Amazon, FedEx, Purolator, GFS, Sysco, Sobeys/Safeway, Loblaws, Brookfield, The Brick, DHL, UPS, Canadian Tire).

You can lease for less in Calgary

When comparing rental rates between Calgary⁶ and Vancouver⁷, there are many factors to consider. Location is one of the biggest factors as your business will want to select a location with easy access to major roads and highways as well as be close to intermodal rail yards and the airport. Both regions have several location options throughout the cities. When speaking with real estate agents that represent these regions, the following conclusions were reached:

- **Vancouver is more expensive across the board for all types of warehouse or distribution centres.**
- There are far fewer options in Vancouver, but in recent quarters, more options are becoming available in the Greater Vancouver area.
- The “additional rent” (which covers taxes, utilities etc.) is comparable in Vancouver and Calgary.
- The “base rent” (or net rent) is much greater in Vancouver than Calgary but fluctuates widely based on location within the greater Vancouver area, whereas Calgary rates are more consistent.
- The net rent for a ~20,000 square-foot warehouse in Calgary is usually **\$8.50–\$12.00 per square foot, per year.**
- The net rent for a ~20,000 square-foot warehouse in Vancouver is usually between **\$21.00–\$23.00 per square foot, per year.**
- The additional rent for warehouses in Calgary runs \$3.11–\$7.33 per square foot, per year (averaging \$5.32).
- The additional rent for warehouses in Vancouver runs \$3.50–\$7.87 per square foot, per year (averaging \$5.98).
- Estimates for warehouse labour are higher in Vancouver (\$21.27/hour) vs Calgary (\$20.47/hour).⁸
- The rents for regions just outside of Calgary (Balzac) are very similar to Calgary for net rent but tend to be lower for additional rent (\$2–\$3 per square foot per year).
 - Additional rent is lower in regions outside of Calgary due to a lower tax base, but Calgary properties have additional benefits for the extra cost:
 - Fire and ambulance services are closer.
 - Proximity to workforce populations and the ability to attract employees unwilling to drive further during daily commutes.
 - Public transportation is accessible for industrial parks within Calgary.

⁶ <https://www.spacelist.ca/listings/ab/calgary/industrial>

⁷ <https://www.spacelist.ca/listings/r/5/c2b2r58jcf/industrial>

⁸ <https://ca.indeed.com/career/warehouse-worker/salaries/>



Figure 5 shows some properties available for lease within Calgary that were listed in July 2024 along with the address and square footage.

Base rents tend to be lower for larger properties and older buildings. Other factors, such as the inclusion of office space, the number of bay/dock doors, and the geographic location, also influence base rental rates. The lowest base rent is for a 63,391-square-foot property in NE Calgary.

Figure 6 presents a chart showing properties available for lease in the Greater Vancouver area as of July 2024, along with their addresses and square footage. It is important to note that no properties were available in Vancouver proper, and rental rates remain high, even in more distant areas like Surrey and Langley.

FIGURE 5 Sample of rental locations in Calgary in July 2024 in CDN\$⁹

Calgary industrial lease opportunities July 2024					
Area	Address	Square feet	Base rent	Additional rent	Monthly rate
Calgary	11358 Barlow Trail NE	16,779	\$10.00 sf/yr	\$5.00 sf/yr	\$ 20,973.75
Calgary	7270 – 106 Avenue SE	18,242	\$9.20 sf/yr	\$5.80 sf/yr	\$ 22,802.50
Calgary	7150 – 104 Avenue SE	20,904	\$12.00 sf/yr	\$6.00 sf/yr	\$ 31,356.00
Calgary	K - 7111 6 Street SE	24,497	\$9.00 sf/yr	\$7.33 sf/yr	\$ 33,336.33
Calgary	G - 7803 35 Street SE	31,287	\$9.00 sf/yr	\$5.76 sf/yr	\$ 38,483.01
Calgary	5495 – 61 Avenue SE	33,996	\$9.00 sf/yr	\$4.95 sf/yr	\$ 39,520.35
Calgary	106-114 – 2730 39 Avenue NE	41,917	\$8.75 sf/yr	\$6.22 sf/yr	\$ 52,291.46
Calgary	2916 – 21 Street NE	46,831	\$8.00 sf/yr	\$3.11 sf/yr	\$ 43,357.70
Calgary	2510 – 61 Avenue SE	63,391	\$7.50 sf/yr	\$4.20 sf/yr	\$ 61,806.23
Calgary	315 Manitou Road SE	72,958	\$8.50 sf/yr	\$3.40 sf/yr	\$ 72,350.02
Calgary	5211-5241 – 52 Street SE	75,425	\$12.75 sf/yr	\$5.85 sf/yr	\$ 116,908.75
Calgary	A-D - 8077 – 40 Street SE	76,488	\$9.00 sf/yr	\$6.22 sf/yr	\$ 97,012.28
			\$9.39 sf/yr	\$5.32 sf/yr	

⁹ <https://www.spacelist.ca/listings/ab/calgary/industrial>

FIGURE 6 Sample of rental locations in Vancouver in July 2023 in CDN\$¹⁰

Vancouver industrial lease opportunities July 2024					
Area	Address	Square Feet	Base Rent	Additional Rent	Monthly Rate
Surrey	101-102 – 19298 36 Avenue	17,857	\$15.00 sf/yr	\$3.50 sf/yr	\$ 80,012.50
Surrey	108/109 – 3560 190 Street	21,461	\$22.00 sf/yr	\$6.20 sf/yr	\$ 41,963.95
Richmond	198 – 12759 Vulcan Way	25,230	\$22.00 sf/yr	\$5.75 sf/yr	\$ 49,628.56
Langley	2 - 10097 201 Street	26,497	\$23.00 sf/yr	\$6.23 sf/yr	\$ 61,456.08
Surrey	101-104 – 19298 36 Avenue	35,343	\$22.00 sf/yr	\$5.33 sf/yr	\$ 60,346.92
Burnaby	105-108 – 8183 Wiggins Street	37,512	\$22.00 sf/yr	\$6.20 sf/yr	\$ 83,056.05
Delta	1454-1460 Cliveden Avenue	39,417	\$23.00 sf/yr	\$7.87 sf/yr	\$ 96,499.62
Delta	7555 Beedie Way	50,000	\$23.00 sf/yr	\$6.52 sf/yr	\$ 96,965.82
Burnaby	2 – 3855 Wayburne Drive	50,329	\$21.00 sf/yr	\$6.35 sf/yr	\$ 113,958.33
Burnaby	8985 Fraserwood Court	50,560	\$25.00 sf/yr	\$6.00 sf/yr	\$ 130,016.58
Langley	103-106 – 19225 32 Avenue	55,087	\$20.75 sf/yr	\$6.07 sf/yr	\$ 113,001.60
Pitt Meadows	510-514 – 19055 Airport Way	75,156	\$20.00 sf/yr	\$5.50 sf/yr	\$ 117,059.88
			\$22.27 sf/yr	\$5.98 sf/yr	

Purchasing will cost you more in Vancouver

A company that purchases its warehouse space will also find the cost very different between Calgary and Vancouver. Information provided by industrial brokers indicate that Calgary rates for a distribution centre varies between \$200–380 per square foot. Conversely, in the Vancouver area similar buildings would cost \$575–700 per square foot. In the month of July 2024, most properties listed for sale in the Vancouver area were in the Langley, Surrey, and Coquitlam areas whereas Calgary had several properties fitting the target space range and building characteristics.



¹⁰ <https://www.spacelist.ca/listings/r/5/c2b2r58jcf/industrial>



Figure 7 shows properties that were listed in the Vancouver region during the month of July 2024. Only one property, in Richmond, was less than 20 kms from downtown Vancouver. Surrey, Langley and Coquitlam are all estimated as at least 40-minute drive times to downtown Vancouver.

Figure 8 shows sample properties within Calgary that were listed for sale during the month of July 2024. Please note that these available properties can fluctuate based on time frame and may no longer be on the market. The prices for smaller distribution centres are more per square foot than larger properties, and the age of the building also has an impact as newer properties tend to have higher asking prices as well.

FIGURE 7 List of sample properties that were listed for sale in the Vancouver region during July 2024¹¹

Location	Square feet	Address	Price	Price/S.F.
Surrey	35,343	101-104 – 19298 36 Avenue	\$ 20,322,225	\$ 575.00
Surrey	26,000	19159 – 33 Avenue	\$ 15,500,000	\$ 596.15
Langley	11,565	20279 – 97 Avenue	\$ 7,200,000	\$ 622.57
Port Coquitlam	25,211	1622 Kebet Way	\$ 15,250,000	\$ 604.89
Surrey	26,095	19159 – 33 Avenue	\$ 15,500,000	\$ 593.98
Langley	10,587	1 – 20120 102B Avenue	\$ 6,350,000	\$ 599.79
Richmond	36,571	2620 Simpson Road	\$ 25,500,000	\$ 697.27
Langley	24,768	20445 – 62 Avenue	\$ 16,200,000	\$ 654.07
Coquitlam	30,257	2401 United Boulevard	\$ 27,000,000	\$ 892.36
Surrey	35,343	101-104 – 19298 36 Avenue	\$ 20,322,225	\$ 575.00
Delta	18,608	7989 – 82 Street	\$ 12,500,000	\$ 671.75
			\$ 16,513,132	\$ 643.90

FIGURE 8 List of sample properties that were listed for sale in Calgary during July 2024¹²

Location	Square feet	Address	Price	Price/S.F.
Calgary	20,904	7150 – 104 Avenue SE	\$ 7,950,000	\$ 380.31
Calgary	58,194	3016 – 58 Avenue SE	\$ 10,750,000	\$ 184.73
Calgary	21,258	512 Moraine Road NE	\$ 4,850,000	\$ 228.15
Calgary	37,000	7290 – 106 Avenue SE	\$ 12,500,000	\$ 337.84
Calgary	19,978	220 Pegasus Way NE	\$ 5,500,000	\$ 275.30
Calgary	25,680	3605 – 32 Street NE	\$ 5,250,000	\$ 204.44
Calgary	51,544	5920 – 40 Street SE	\$ 11,000,000	\$ 213.41
			\$ 8,257,143	\$ 260.60

¹¹ <https://www.spacelist.ca/listings/r/5/c2b2r58jcf/industrial> with listings details confirmed by brokers

¹² <https://www.spacelist.ca/listings/ab/calgary/industrial> with details confirmed by listing brokers

Calgary land — more choice, less cost

Land costs are also higher in Vancouver for serviced land ready for new development. The Calgary region's current prices for industrial land, up to 10 acres, can range from approximately \$500,000 to \$1,500,000 per acre. The higher-priced land tends to be smaller parcels. There is very little fully serviced land in the Vancouver region. There is a 1.41-acre parcel that is listed for \$13,120,567 per acre. As there are very few examples for properties right in Vancouver, we have provided rates for land outside the city, with samples less per acre the further away from Vancouver. The rates in Calgary are more consistent and the fluctuations are more based on the size of the property (larger plots are less expensive).

The City of Calgary promotes its real estate development as part of a growth strategy. They have been selling land for all uses, including industrial operations. "The City has been servicing and selling its real estate assets for more than 60 years. We've developed more than 5,000 acres and sold to 2,700 businesses employing more than 50,000 people." (<https://www.calgary.ca/realestate/blog/buying-industrial-real-estate-from-the-city-of-calgary.html>)

Figure 9 shows some properties were sold in the Vancouver region during July 2024. The lowest price per acre is in Maple Ridge, still \$1,103,958 per acre. This property is also about 50 kilometers from downtown Vancouver and close to an hour of driving time.

Figure 10 shows land that for sale during the month of July 2024 in Calgary. Each of these listings are within the city limits and the price per acre is consistent but does get lower for the land that is larger, averaging out at \$859,558 per acre.

FIGURE 9 Properties for sale in the Vancouver region in July 2024¹³

Location	Acres	Address	Price	Price/Acre
Maple Ridge	1	13140 Katonien Street	\$ 3,650,000	\$ 3,650,000
Port Coquitlam	1.75	1710 Coast Meridian Road	\$ 13,000,000	\$ 7,428,571
Vancouver	1.41	8955 Shaughnessy Street	\$ 18,500,000	\$ 13,120,567
Surrey	2.31	12880 Shell Road	\$ 11,800,000	\$ 5,108,225
Maple Ridge	4.8	24628 River Road	\$ 5,299,000	\$ 1,103,958
			\$ 10,449,800	\$ 6,082,264

FIGURE 10 Properties for sale in Calgary in July 2024¹⁴

Location	Acres	Address	Price	Price/Acre
Calgary	9.93	6123 – 84 Street SE	\$ 4,900,000	\$ 493,454
Calgary	5.98	3155 – 48 Street NE	\$ 2,999,900	\$ 501,656
Calgary	4.48	6915 – 40 Street NE	\$ 3,600,000	\$ 803,571
Calgary	3.49	11124 – 15 Street NE	\$ 3,900,000	\$ 1,117,479
Calgary	2.34	4440 – 76 Avenue NE	\$ 1,750,000	\$ 747,863
Calgary	1.9	117 Freeport CR NE	\$ 2,750,000	\$ 1,447,368
Calgary	1.27	5333 – 61 Avenue SE	\$ 1,150,000	\$ 905,512
			\$ 3,007,129	\$ 859,558

¹³ <https://www.spacelist.ca/listings/ab/calgary/industrial>

¹⁴ https://www.loopnet.com/intl/canada/alberta/calgary_land/4/

More projects underway

Both Calgary and Vancouver have many projects under construction to help with the demand for more warehouse and distribution centre inventory. Currently, Metro Vancouver has approximately 6.8 million square feet and under construction¹⁵ while Calgary has about 2.8 million square feet¹⁶. This new inventory will help plateau Vancouver's chronic landlord market, which remains aggressive since increases in 2021 and 2022.

An analysis of supply and demand suggests that Calgary has a sufficient supply of land through 2076 (Citywide Growth Strategy: Industrial (calgary.ca) and Figure 11). The city benefits from numerous industrial parks developed by private entities, including Stone Gate, Oxford Airport, Stoney, and The District. Additionally, The City of Calgary has a 600-acre multi-year industrial development underway: Constellation Industrial Park. The City of Calgary in collaboration with neighbouring Rocky View County, is also planning a new 1,500-acre industrial park (see Figure 12).

In Calgary, the ample supply of industrial land positions the market well for equilibrium.

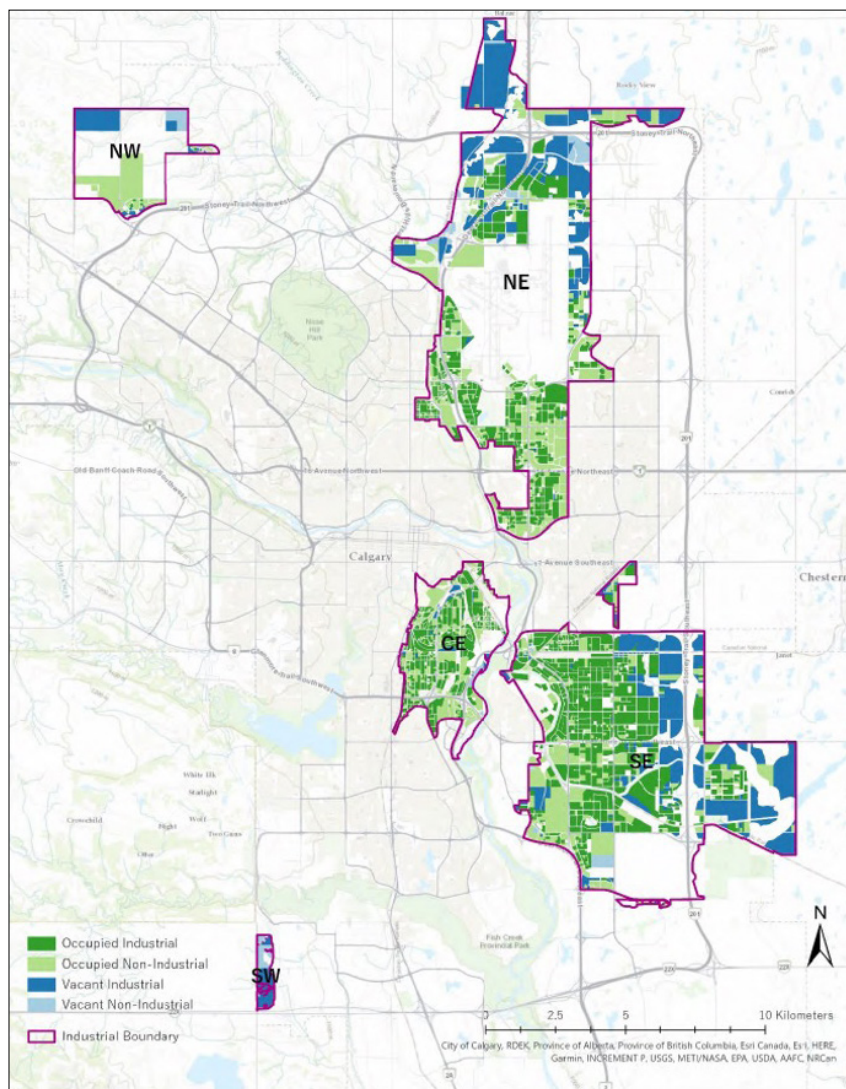


FIGURE 11 Occupied and vacant land in Calgary's industrial areas

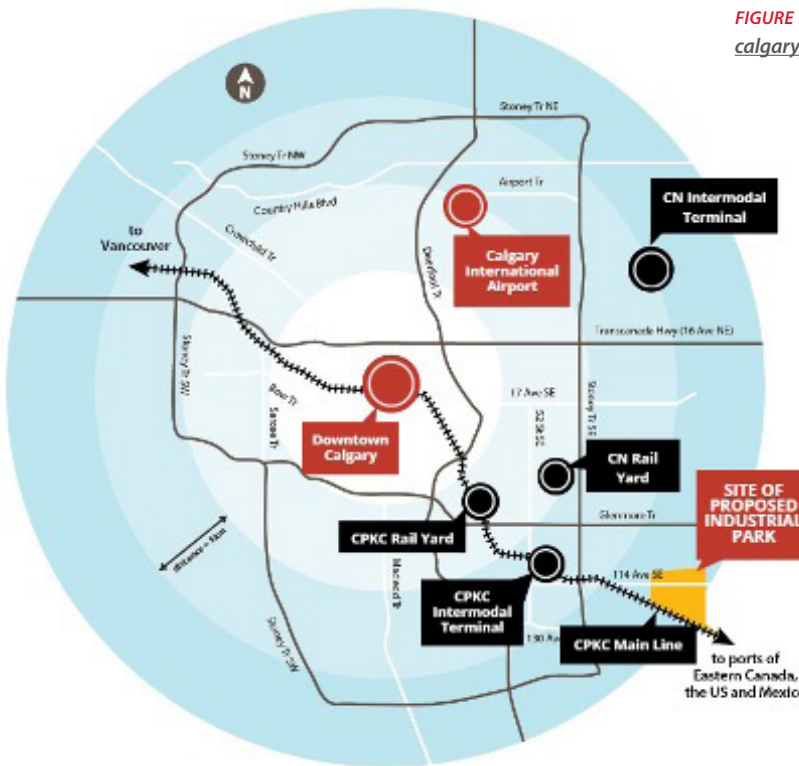
Source: Industrial Area Growth Strategy Consulting Report – Phase 2
The City of Calgary, Cushman Wakefield, and Metroeconomics June 2023.

<https://www.calgary.ca/content/dam/www/pda/pd/publishingimages/calgaryindustrialsector/IAGS-consulting-report-phase-2.pdf>

¹⁵ <https://www.avisonyoung.ca/documents/d/vancouver/avison-young-metro-vancouver-industrial-report-q1-2024>

¹⁶ <https://www.avisonyoung.ca/documents/d/calgary/calgary-industrial-market-report-q1-2024-final>

FIGURE 12 Prairie Economic Gateway (<https://www.calgary.ca/planning/prairie-economic-gateway.html>)



Distribution costs

Once the product has arrived at a distribution centre or warehouse, it gets delivered or distributed to customers or stores within its region. Distribution costs can vary depending on the range of distribution or delivery and the volume of product that is transported. The range for this study is Western Canada: Manitoba, Saskatchewan, Alberta and British Columbia. Most cities included are larger than 60,000 people (see **Figure 13**).

The cities included for distribution are:

- Greater Vancouver, BC (2,642,825)
- Greater Kelowna, BC (222,162)
- Kamloops, BC (114,142)
- Prince George, BC (89,490)
- Cranbrook, BC (27,040)
- Calgary Region, AB (1,481,806)
- Edmonton Region, AB (1,418,806)
- Red Deer, AB (100,844)
- Lethbridge, AB (123,847)
- Medicine Hat, AB (76,376)
- Grande Prairie, AB (64,141)
- Fort McMurray, AB (73,837)
- Saskatoon, SK (317,480)
- Regina, SK (249,217)
- Winnipeg, MB (749,607)
- Brandon, MB (51,313)

FIGURE 13 Population from the cities and regions used for rates from Calgary and Vancouver for distribution in most recent completed census in 2016

	Total population 2021 Census	16 cities in study	Population % covered in study
British Columbia	5,000,879	3,095,659	61.90%
Alberta	4,262,635	3,338,969	78.33%
Saskatchewan	1,132,505	566,697	50.04%
Manitoba	1,342,153	800,920	59.67%
Western Canada	11,738,172	7,802,245	66.47%

When combining each of these cities/regions of Western Canada, we have a total population of 7,802,245 for the four provinces based on the 2021 Canadian Census.¹⁷ These sixteen cities or regions account for 66.5% of the total population of Western Canada.

¹⁷ <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?lang=E> - accessed July 5, 2024

Figure 14 shows the average rates provided by interviewing five different logistics or shipping companies for each region. The average did not deviate much from the lowest to highest quotes in either region. Some rates may seem higher than expected, due to the shipper also paying for the return trip. The carrier may not have the opportunity to get a paid return trip with cargo from the destination city and therefore must pay for the truck to go both directions. In some cases, the rates could also incorporate a repositioning of the truck asset for the carrier company.

Full truckloads delivered from Calgary or Vancouver

The rates provided in **Figure 14** are for full truckloads being delivered from either the origin city of Calgary or Vancouver to each of the cities in this study. The rates for Calgary to Calgary are based on an average distance of 15 kilometres while for Vancouver the average distance is 20 kilometres.

Most of the companies interviewed also provided rates for LTL shipments but there were much larger variances from carrier to carrier. In general, the rates provided were relatively similar ratio-wise to the rates for FTL shipments, but the data was inconsistent. For our full cost analysis, FTL shipment costing was used.

Figure 15 shows the quotes for temperature controlled (refrigerated or frozen) product for distribution in Western Canada. The numbers are generally about 20 per cent higher than the rates for dry shipments.

Lower distribution costs from Calgary

Overall, the costs for distribution from Calgary are lower than they are from Vancouver based on the population base for each of the cities. For this analysis, we will include data from a company that ships 1000 FTL shipments in one year from either Vancouver or Calgary (Figure 16). This does not include extra fees such as accessorial charges for additional driver work, specialized equipment, etc.

We also compiled four levels of data for companies that ship 5000, 1000, 500 and 100 FTL shipments annually to show the difference in cost for each level of volume. The data is included in the Appendix to show the variance between Calgary and Vancouver.

FIGURE 14 Dry full truckload rates to Western Canada with origin of Calgary and Vancouver

Average rates table for dry shipments	Origin	
	Calgary	Vancouver
Calgary (area)	\$ 523.25	\$ 3,037.10
Edmonton, AB	\$ 1,475.42	\$ 3,321.53
Red Deer, AB	\$ 1,181.83	\$ 3,589.50
Lethbridge, AB	\$ 1,425.63	\$ 4,047.38
Grande Prairie, AB	\$ 2,920.23	\$ 6,666.32
Medicine Hat, AB	\$ 1,628.11	\$ 4,426.97
Fort McMurray, AB	\$ 4,076.27	\$ 7,229.68
Saskatoon, SK	\$ 1,792.77	\$ 5,171.06
Regina, SK	\$ 1,540.21	\$ 4,283.66
Winnipeg, MB	\$ 2,540.40	\$ 5,585.18
Brandon, MB	\$ 3,030.50	\$ 7,655.78
Vancouver (area)	\$ 2,929.70	\$ 472.16
Kamloops, BC	\$ 2,670.15	\$ 2,391.08
Kelowna, BC	\$ 2,257.63	\$ 2,406.45
Cranbrook/Kimberley, BC	\$ 2,681.51	\$ 4,716.86
Prince George, BC	\$ 4,536.59	\$ 4,171.11

FIGURE 15 Temperature-controlled full truckload rates to Western Canada with origin of Calgary and Vancouver

Average rates table for refrigerated product	Origin	
	Calgary	Vancouver
Calgary (area)	\$ 607.31	\$ 3,487.38
Edmonton, AB	\$ 1,609.02	\$ 3,812.91
Red Deer, AB	\$ 1,237.34	\$ 4,029.76
Lethbridge, AB	\$ 1,530.42	\$ 4,465.87
Grande Prairie, AB	\$ 3,506.20	\$ 7,240.56
Medicine Hat, AB	\$ 1,809.22	\$ 5,020.27
Fort McMurray, AB	\$ 4,479.99	\$ 8,331.41
Saskatoon, SK	\$ 2,421.43	\$ 6,166.66
Regina, SK	\$ 1,910.52	\$ 5,108.41
Winnipeg, MB	\$ 3,141.37	\$ 6,660.51
Brandon, MB	\$ 4,208.52	\$ 9,129.77
Vancouver (area)	\$ 3,322.27	\$ 609.89
Kamloops, BC	\$ 2,690.75	\$ 2,669.81
Kelowna, BC	\$ 2,414.42	\$ 2,704.92
Cranbrook/Kimberley, BC	\$ 2,814.89	\$ 4,937.36
Prince George, BC	\$ 4,929.12	\$ 4,835.90

FIGURE 16 Total cost estimate for 1000 dry shipments from Calgary and from Vancouver

To	Population	% of Pop.	1000 shipments	Total cost from Calgary	Total cost from Vancouver
Calgary (area)	1,481,806	19.0%	189.9	\$ 99,375.25	\$ 576,806.69
Edmonton, AB	1,418,118	18.2%	181.8	\$ 268,168.56	\$ 603,713.06
Red Deer, AB	100,844	1.3%	12.9	\$ 15,275.18	\$ 46,394.33
Lethbridge, AB	123,847	1.6%	15.9	\$ 22,629.45	\$ 64,245.08
Grande Prairie, AB	76,376	1.0%	9.8	\$ 28,586.07	\$ 65,256.46
Medicine Hat, AB	64,141	0.8%	8.2	\$ 13,384.46	\$ 36,393.37
Fort McMurray, AB	73,837	0.9%	9.5	\$ 38,576.04	\$ 68,418.50
Saskatoon, SK	317,480	4.1%	40.7	\$ 72,949.48	\$ 210,414.84
Regina, SK	249,217	3.2%	31.9	\$ 49,197.04	\$ 136,827.40
Winnipeg, MB	749,607	9.6%	96.1	\$ 244,070.99	\$ 36,600.69
Brandon, MB	51,313	0.7%	6.6	\$ 19,930.68	\$ 50,349.74
Vancouver (area)	2,642,825	33.9%	338.7	\$ 992,364.87	\$ 159,932.97
Kamloops, BC	114,142	1.5%	14.6	\$ 39,062.61	\$ 34,979.94
Kelowna, BC	222,162	2.8%	28.5	\$ 64,284.08	\$ 68,521.39
Cranbrook/Kimberley, BC	27,040	0.3%	3.5	\$ 9,293.21	\$ 16,347.06
Prince George, BC	89,490	1.1%	11.5	\$ 52,033.70	\$ 47,841.64
Total	7,802,245	100%	1000.0	\$ 2,029,181.64	\$ 2,723,043.15

Calgary distribution costs only 75 per cent of Vancouver's

The total estimated cost for dry shipments from Vancouver for 1000 total shipments is \$2,723,043.15. The Calgary estimate is 75 per cent of the Vancouver estimate. That means the costs for distribution from Calgary to the sixteen cities in **Figure 16** is estimated to be 75 per cent of the distribution costs from Vancouver. When comparing a lower number of shipments **Figure 17**, the ratio remains the same (Calgary is 75 per cent of Vancouver costs) but the actual dollar difference becomes lower.

FIGURE 17 Estimated cost differences between Calgary and Vancouver based on varying volumes of annual shipments

	Annual shipments	Origin	Distribution costs	% Less from Calgary	Calgary advantage
Dry shipments	100	Calgary	\$ 202,918.16	74.5%	\$ 69,386.15
	100	Vancouver	\$ 272,304.32		
	500	Calgary	\$ 1,014,590.82	74.5%	\$ 346,930.75
	500	Vancouver	\$ 1,361,521.58		
	1000	Calgary	\$ 2,029,181.64	74.5%	\$ 693,861.51
	1000	Vancouver	\$ 2,723,043.15		
	5000	Calgary	\$ 10,145,908.22	74.5%	\$ 3,469,307.55
	5000	Vancouver	\$ 13,615,215.77		
Temperature-controlled Shipments	100	Calgary	\$ 232,845.82	73.3%	\$ 85,015.83
	100	Vancouver	\$ 317,861.65		
	500	Calgary	\$ 1,164,229.09	73.3%	\$ 425,079.17
	500	Vancouver	\$ 1,589,308.26		
	1000	Calgary	\$ 2,328,458.18	73.3%	\$ 850,158.35
	1000	Vancouver	\$ 3,178,616.52		
	5000	Calgary	\$ 11,642,290.88	73.3%	\$ 4,250,791.73
	5000	Vancouver	\$ 15,893,082.61		

The bigger the company, the bigger the Calgary advantage. The biggest difference becomes clearer when there are 5000 annual shipments. The obvious conclusion is that the bigger the company or total volume, the more the differential favours setting up a warehouse or distribution centre in the Calgary region.

Transportation time for imports from Asia and Europe to Calgary and Vancouver

FTL shipments

The time required to ship product from Asia to North America can vary greatly depending on all the different legs of the move. We are looking at shipments that enter Canada via either the Port of Vancouver or the Port of Prince Rupert. These are the fastest routes due to their distance to Asia as well as the rail portion (if required) being a one-line haul (either Canadian Pacific Kansas City or Canadian National). If the North American port is in the United States, there is an extra rail line required to bring the product to either CPKC or CN.

The sailing time advantage for Canadian ports increases the further north the Asian port is.

Prince Rupert is the closest port and has the shortest sailing time from most of Asia. It is a little further from Calgary as the rail travels through Edmonton before heading south to Calgary, as Prince Rupert is only served by CN. For shipments through Vancouver, both CPKC and CN serve the port. CPKC has a more direct route to Calgary as CN must travel through Edmonton but still moves product quickly to Calgary

FIGURE 18 Ocean vessel travel times from Tokyo, Japan - an advantage for Canadian ports (www.fluentcargo.com)

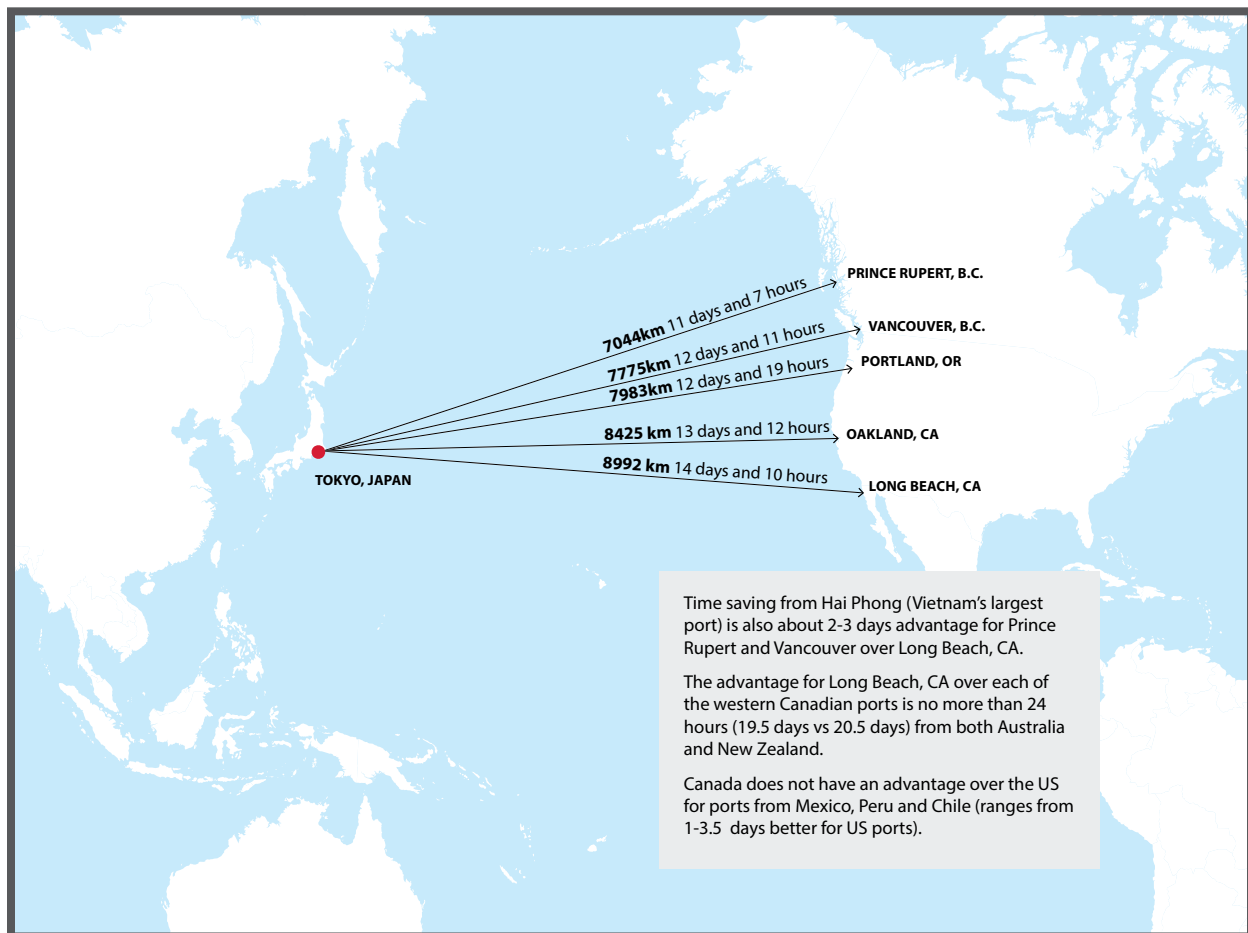


Figure 19 shows the estimated travel time for FCL shipments from Asian markets to both Vancouver and Calgary with all aspects included in the shipment.

The source shows the same transit time range to both Calgary and Vancouver. However, we know there will be extra time to get to Calgary based on an extra rail or truck component. The transit time to get to Calgary from Vancouver by rail can range from an extra day to four days depending on the port and railway.

Generally, for product originating in Asian markets, Calgary will take 36 to 84 hours longer than Vancouver due to the extra rail time (depending on the railway and the entry port). For products originating in Europe, Vancouver destinations will take 24 to 48 hours longer than Calgary for the extra rail time transportation.

For North American origins, Calgary is closer for all destinations in the east and Vancouver is slightly closer for origins in western North America.

FIGURE 19 Estimated FCL transportation times from Asian markets to Calgary and Vancouver¹⁸

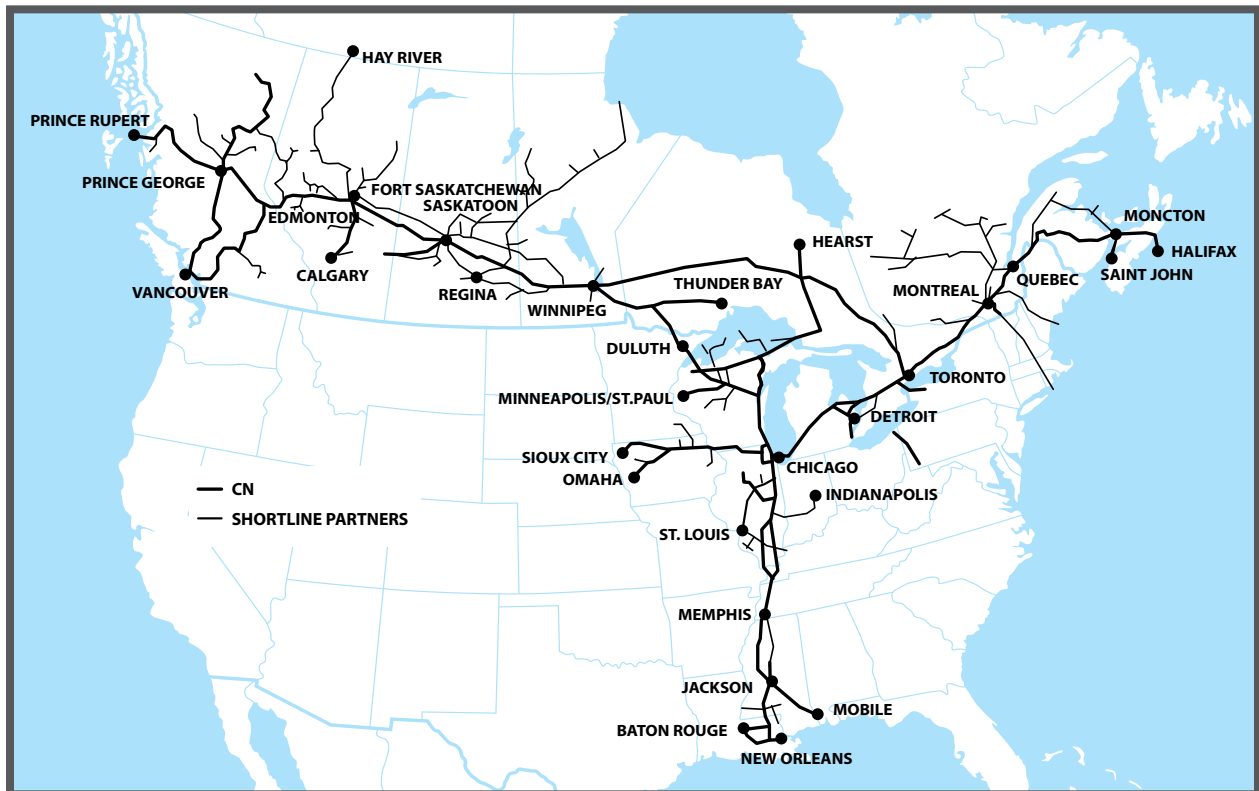
Origin city	Port city	Country	Via	Via (to Calgary)	Travel time (Days)			
					20'		40'	
					Calgary	Vancouver	Calgary	Vancouver
Shanghai	Shanghai	China	Vancouver	Vancouver	21-37	16-30	21-37	16-30
Hong Kong	Hong Kong	China	Vancouver	Vancouver	24-43	18-30	24-43	18-30
Seoul	Busan	South Korea	Vancouver	Vancouver	27-34	26-32	27-34	26-32
Singapore	Singapore	Singapore	Vancouver	Vancouver	32-39	28-35	32-39	28-35
Kuala Lumpur	Port Klang	Malaysia	Vancouver	Vancouver	34-43	30-38	34-43	30-38
Kyoto	Osaka	Japan	Vancouver	Vancouver	21-27	19-26	21-27	19-26
Munster	Hamburg	Germany	Montreal		31-38	33-40	31-38	33-40

FIGURE 20 Map of Canadian Pacific Kansas City Intermodal locations throughout North America



¹⁸ <https://www.freightos.com/freight-resources/transit-time-calculator/>

FIGURE 21 Map of Canadian National Railway Intermodal locations throughout North America¹⁹



Figures 20 and 21 show the more direct route that CPKC has from Vancouver to Calgary than CN has from either Vancouver or Prince Rupert. However, the actual times to transport the product are very similar.

FCL shipments to Calgary from Asia will have extra time of two to four days compared to Vancouver. FCL shipments from Europe to Vancouver will usually have an extra day compared to shipments to Calgary.



¹⁹ <https://www.cn.ca/en/repository/popups/maps/cn-intermodal-terminals-map>

LCL shipments take longer than FCL

Less-than-container load (LCL) shipments tend to take longer from most Asian origins than FCL shipments. This is due to the need to ensure that containers are fully loaded at the origin, which can take extra time if the container is waiting to be filled with additional shipments destined for the same region. LCL shipments can also be transported by air, which is significantly faster than ocean freight, though it is also much more expensive.

Figure 22 shows the estimated transportation times for shipping LCL loads (again, two pallets with dimensions of 48" x 40" x 48" high). Once again, the transportation times are very similar for Calgary and Vancouver for both ocean freight and air. There will be an additional day or two longer for shipments to Calgary by ocean, as they will have to either be trucked from Vancouver or railed in the container if the entire shipment is destined to Calgary. The air options show the same time frame as well, but there are more options to transport shipments into Vancouver than there are directly to Calgary.

FIGURE 22 Estimated LCL transportation times from Asian markets to Calgary and Vancouver²⁰

Origin city	Port city	Country	Via	Via (to Calgary)	Travel time (Days) LCL (2 skids 300kg)			
					Ocean freight		Air freight	
					Calgary	Vancouver	Calgary	Vancouver
Shanghai	Shanghai	China	Vancouver	Vancouver	32-49	27-42	6-9	6-9
Hong Kong	Hong Kong	China	Vancouver	Vancouver	35-55	29-42	7-10	7-10
Seoul	Busan	South Korea	Vancouver	Vancouver	29-45	37-44	7-9	7-9
Singapore	Singapore	Singapore	Vancouver	Vancouver	43-47	39-47	6-10	6-10
Kuala Lumpur	Port Klang	Malaysia	Vancouver	Vancouver	41-51	41-50	7-10	7-10
Kyoto	Osaka	Japan	Vancouver	Vancouver	28-34	26-33	5-8	5-8
Munster	Hamburg	Germany	Montreal		34-43	46-45	5-7	5-7



²⁰ <https://www.freightos.com/freight-resources/transit-time-calculator/>

Transportation time for distribution from warehouse or distribution centre

Once the product has reached the warehouse or distribution centre, it must be transported to the end-user or seller (retailer). We have assumed these shipments would be distributed by FTL, as LTL shipments would be challenging to estimate but would likely fall along the same ratios presented here for FTL shipments.

Using the same destination cities across Western Canada, we have provided the estimated time for these shipments to be driven to destinations. We have used the centre of each city or region, as it is difficult to determine where the origin and destination points could be. For many of the distances shown here, any discrepancy would be minimal and likely even out over time. For shipments within Calgary, the distance provided is 9 miles (15 kilometres) and the driving time for delivery is estimated at 30 minutes. For Vancouver, the distance is 12 miles (20 kilometres) and the driving time for delivery is estimated at 45 minutes. Vancouver is more congested and Greater Vancouver covers a very long and narrow region. Some shipments will take less time in both cities (and less distance) and some will take longer and be further away. The driving time and miles is from PC Miler (a trucking tool used to determine driving time and distance) and is subject to change based on averages, congestion, and construction. It is important to note that PC Miler settings were such to estimate drive times for a FTL tractor-trailer vehicle. Drive times for commercial vehicles are much longer than for passenger vehicles in any road condition.

Figure 23 shows the estimated transit time and distance for Western Canadian destinations with Calgary as the origin. We have used 1000 annual shipments for this example to show the difference between Calgary and Vancouver. Calgary has a total estimate of 8,249.4 hours of driving time (does not include unloading time, as this should be the same for both origins). The total distance for 1,000 shipments from Calgary is estimated to be 394,006 miles. This highlights a key difference between distributing products from Calgary or Vancouver. Noting, some transportation companies charge a fuel surcharge based on miles traveled, meaning a lower overall cost with fewer miles, especially as the price of fuel increases over time. If a company handles its own distribution, this shorter distance means less wear and tear on their trucks. Regardless of whether the distribution is handled by a hired trucking company or an internal fleet, fewer greenhouse gas emissions will be burnt compared to trucks traveling from Vancouver.

FIGURE 23 Estimated driving time and miles using Calgary as the origin to Western Canadian destinations

ORIGIN CALGARY	Population	% of Pop.	1000 shipments	Estimated transit time (minutes)	Miles/KM's	Total hours	Total miles
Calgary (area)	1,481,806	19.0%	189.9	30	9	95.0	1709.1
Edmonton, AB	1,418,118	18.2%	181.8	249	187.7	754.5	34123.9
Red Deer, AB	100,844	1.3%	12.9	114	92.2	24.5	1189.4
Lethbridge, AB	123,847	1.6%	15.9	176	130.6	46.6	2076.5
Grande Prairie, AB	76,376	1.0%	9.8	557	469	91.0	4596.2
Medicine Hat, AB	64,141	0.8%	8.2	230	184.6	31.4	1513.7
Fort McMurray, AB	73,837	0.9%	9.5	574	460.5	90.9	4374.8
Saskatoon, SK	317,480	4.1%	40.7	526	387.5	356.8	15771.3
Regina, SK	249,217	3.2%	31.9	586	471.5	311.6	15040.9
Winnipeg, MB	749,607	9.6%	96.1	1022	828.4	1636.9	79609.2
Brandon, MB	51,313	0.7%	6.6	850	701.1	93.5	4627.3
Vancouver (area)	2,642,825	33.9%	338.7	744	605.5	4199.9	205082.9
Kamloops, BC	114,142	1.5%	14.6	494	386	120.2	5635.6
Kelowna, BC	222,162	2.8%	28.5	479	374.9	227.5	10684.7
Cranbrook/Kimberley, BC	27,040	0.3%	3.5	331	239.8	19.3	839.3
Prince George, BC	89490	1.1%	11.5	782	620.1	149.9	7131.2
Totals	7,802,245	100.0%	1000.0			8,249.4	394,005.7

Figure 24 shows the estimated transit time and distance for shipments originating in Vancouver to various Western Canadian destinations. The total transportation time for shipments from Vancouver is 11,043 hours. This is 34% longer than from Calgary, which means an additional 2,793 hours of driving. The total distance is also about 35% further from Vancouver, with an extra 137,574 miles (531,580 miles from Vancouver compared to 394,006 miles from Calgary).

These ratios—between time and distance—would remain consistent regardless of whether there are more or fewer shipments. However, similar to cost differences, the actual numbers would vary depending on the volume of shipments: they would decrease with fewer shipments and increase with more shipments, especially for larger organizations.

Another important consideration is the maximum legal hours of service a driver can perform per day. In Western Canada, a driver may only drive 13 hours (780 minutes) per day. Noting, all the destinations in Alberta, Saskatchewan and Manitoba (except Calgary) are estimated to be greater than 780 minutes. This means either a driver would need to layover during the trip (requiring additional transit time) or a team of drivers could be used (requiring additional costs).

FIGURE 24 Estimated driving time and miles using Vancouver as the origin to Western Canadian destinations

ORIGIN VANCOUVER	Population	% of Pop.	1000 shipments	Estimated transit time (minutes)	Miles	Total hours	Total miles
Calgary (area)	1,481,806	19.0%	189.9	743	605	2351.6	114889.5
Edmonton, AB	1,418,118	18.2%	181.8	888	719.9	2690.6	130877.8
Red Deer, AB	100,844	1.3%	12.9	832	688.9	178.9	8886.8
Lethbridge, AB	123,847	1.6%	15.9	898	743.2	238.0	11816.9
Grande Prairie, AB	76,376	1.0%	9.8	923	739.5	150.8	7247.1
Medicine Hat, AB	64,141	0.8%	8.2	948	784.4	129.6	6432.1
Fort McMurray, AB	73,837	0.9%	9.5	1231	987.8	194.9	9384.1
Saskatoon, SK	317,480	4.1%	40.7	1237	988.6	839.1	40236.0
Regina, SK	249,217	3.2%	31.9	1306	1071.1	694.4	34168.1
Winnipeg, MB	749,607	9.6%	96.1	1740	1428.2	2786.9	137250.0
Brandon, MB	51,313	0.7%	6.6	1568	1300.9	172.5	8585.9
Vancouver (area)	2,642,825	33.9%	338.7	45	12/20	254.0	4064.4
Kamloops, BC	114,142	1.5%	14.6	257	222.8	62.5	3252.9
Kelowna, BC	222,162	2.8%	28.5	291	246.2	138.2	7016.7
Cranbrook/Kimberley, BC	27,040	0.3%	3.5	676	524	39.4	1834.0
Prince George, BC	89,490	1.1%	11.5	632	490.2	121.1	5637.3
Totals	7,802,245	100.0%	1000.0			11,042.5	531,579.6



Calgary and Vancouver distribution reaches

Within 1,000 kilometres of Calgary in all directions, there are approximately 24 million people.

Not all areas within this region would be accessible within a day of driving but this provides a representation of the reach from the region as a distribution centre.

Within 1,000 kilometres of Vancouver in all directions, there are approximately 24 million people. Again, some regions would not be accessible within a day of driving, but the two regions have comparable populations to serve as distribution centres.

FIGURE 25 1,000-kilometre radius of Calgary and Vancouver²¹

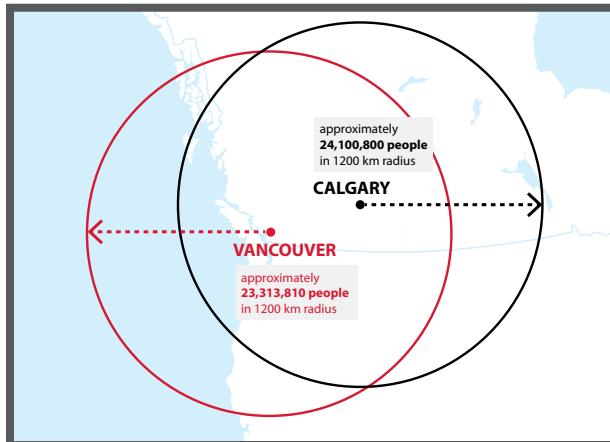


FIGURE 26 Calgary is strategically located for transportation in all directions

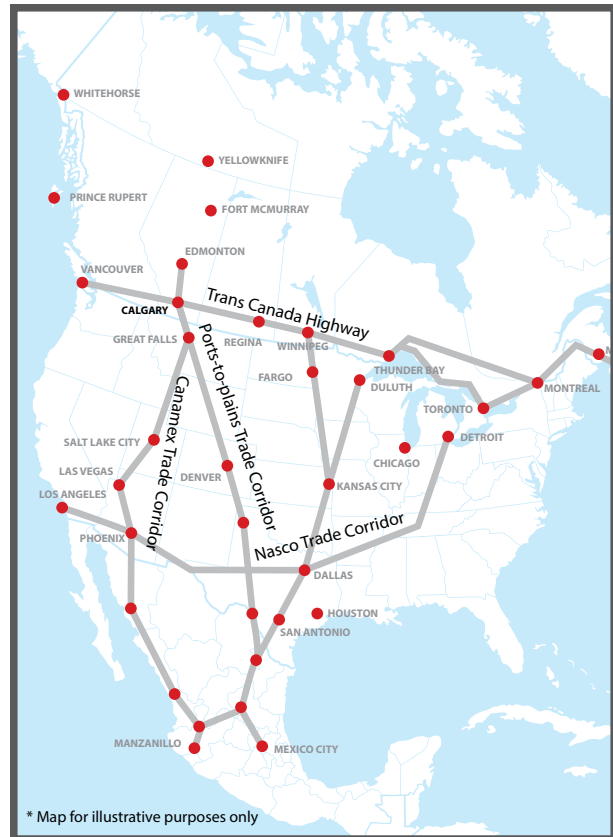
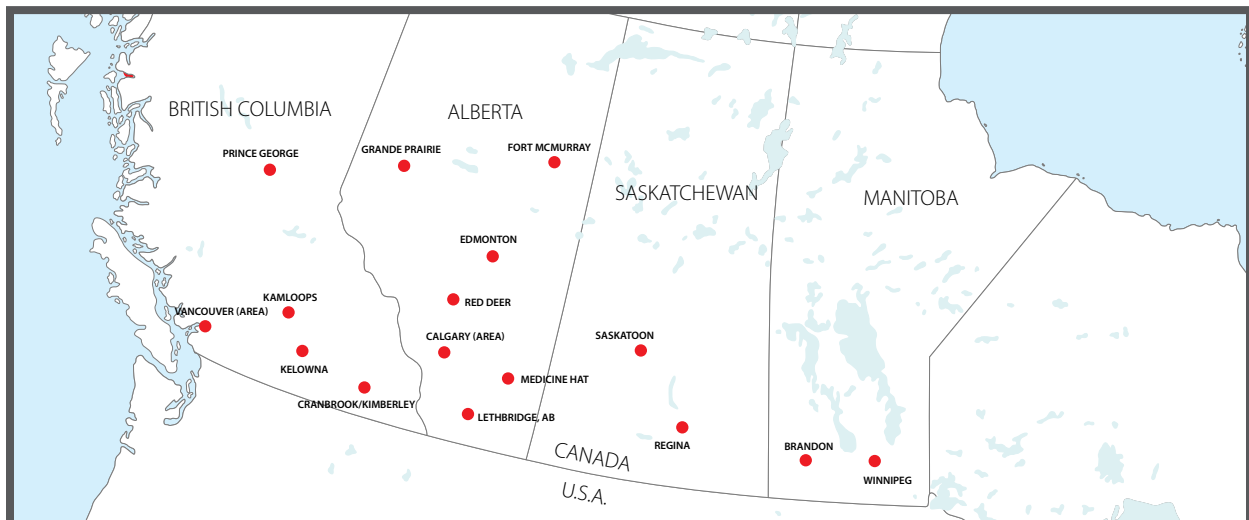


FIGURE 27 Map of cities and regions used for the distribution model



²¹ <https://sedac.ciesin.columbia.edu/mapping/popest/pes-v3/>

Total landed cost scenario

Based on all the previous information, this section will provide the total cost of all aspects of the supply chain including the transportation of containers from Asia to both Calgary and Vancouver, the cost of warehousing and finally the distribution costs to Western Canada. We will use 1000 containers as the inbound traffic, as well as 1000 full truckloads for outbound distribution, as well as the cost for a warehouse that is approximately 20,000 square feet. The origin of the containers will be spread out so that each Asian location has an equal number of containers as well as Münster, Germany (1000/7=142.85). For each origin 143 forty-foot containers will be used.

Figure 28 is a chart showing the estimated inbound costs for product originating in Asia and Europe with an even distribution from each origin.

The data in this table was quoted in US\$ and were converted to CAD\$ using the Bank of Canada’s monthly average exchange rate for June 2024 of \$1.37.

This results in totals of \$12,039,779.66 for Calgary and \$11,352,266.16 for Vancouver.

FIGURE 28 Estimated inbound costs for 1000 containers evenly spread from each of the seven origins

Inbound cost		Destination		Total cost (143 containers)	
Origin city	Country	Calgary	Vancouver	Calgary	Vancouver
Shanghai	China	\$ 12,819.55	\$ 11,704.82	\$ 1,833,195.17	\$ 1,673,789.74
Hong Kong	China	\$ 12,479.33	\$ 11,591.57	\$ 1,784,544.19	\$ 1,657,594.51
Seoul	South Korea	\$ 12,471.11	\$ 11,602.53	\$ 1,783,368.73	\$ 1,659,161.79
Singapore	Singapore	\$ 12,532.76	\$ 11,655.96	\$ 1,792,184.68	\$ 1,666,802.28
Kuala Lumpur	Malaysia	\$ 13,021.39	\$ 12,155.10	\$ 1,862,059.25	\$ 1,738,178.82
Kyoto	Japan	\$ 13,821.47	\$ 13,518.25	\$ 1,976,470.69	\$ 1,933,109.27
Munster	Germany	\$ 7,048.65	\$ 7,158.25	\$ 1,007,956.95	\$ 1,023,629.75
		Total		\$ 12,039,779.66	\$ 11,352,266.16



Figure 29 shows the estimated costs for purchasing a warehouse. We have selected the mid- range based on our number ranges for warehouse costs in the Calgary and Vancouver markets. These rates are selected based on the interviews for estimated rates as there are currently no comparable properties close to the 20,000-square foot range.

Figure 30 shows the estimated distribution costs for 1000 truckloads to Western Canada from each of Calgary and Vancouver.

FIGURE 29 Estimated warehouse purchase costs for 20,000 SF location in Calgary and Vancouver

	20,000 square foot warehouse		
	Rate range	Mid-rate	Estimated rate
Calgary	\$ 180-380/sf	\$ 260/sf	\$ 5,200,000.00
Vancouver	\$ 575-890/sf	\$ 645/sf	\$ 12,900,000.00

FIGURE 30 Estimated distribution costs from Calgary and Vancouver to Western Canadian locations

Distribution costs	
Calgary	\$ 2,029,181.64
Vancouver	\$ 2,723,043.15

And finally, **Figure 31** shows the total estimated costs for a supply chain including inbound costs, warehouse costs and distribution costs from each of Calgary and Vancouver for 1000 inbound shipments, 20,000 square-foot warehouse lease and 1000 outbound shipments for distribution in Western Canada.

FIGURE 31 Total supply chain costs estimates for Calgary and Vancouver

	Calgary	Vancouver
Inbound costs	\$ 12,039,779.66	\$ 11,352,266.16
Warehouse costs	\$ 5,200,000.00	\$ 12,900,000.00
Distribution costs	\$ 2,029,181.64	\$ 2,723,043.15
Total	\$ 19,268,961.30	\$ 26,975,309.31

Supply chain costs favour Calgary

The estimated cost of purchasing a warehouse for distribution is projected to be over \$7.7 million less in Calgary compared to Vancouver. This estimate assumes that most inbound freight is coming from Asia or Europe. However, there will likely be some freight coming from North America and possibly other sources as well.

Calgary's closer proximity to major industrial areas in North America means lower freight costs for transporting products to the city compared to Vancouver. For products sourced within North America, Calgary will generally have a cost advantage. Vancouver would only have a cost benefit for products coming from the lower mainland of British Columbia or the Pacific Northwest (Washington, Oregon, and California). Calgary, on the other hand, is closer to Ontario, Quebec, and the northeastern USA, which means lower inbound transportation costs for products from these regions.

Summary

Calgary's growing appeal as a transportation hub: a strong workforce and strategic advantages drive relocation

A strong labour force combined with education programs in the Calgary region means there are many educated and experienced people in the workforce. Calgary has gained a reputation as a transportation hub. Many companies have moved their distribution centres into the Calgary region. Logistics service providers (trucking companies, freight forwarders, etc.) have followed to support the industry expansion. One reason for that may not be represented in the supply chain rates presented in this study. The rates in this study are basic rates (could be considered tariff rates) and many of the organizations that have moved into the region have much better negotiated rates that have helped them to make the decision to either move their distribution centre to Calgary or to set up a new one.

Some of the companies that have moved into Calgary include Walmart, Loblaws (Real Canadian Superstore), Canadian Tire Group, Marks Work Warehouse, Forzani Group and Sysco. Several others have moved into the Calgary region away from the Vancouver region to optimize their supply chain.

Less expensive when sourcing from North American cities

When sourcing from North American cities, Calgary is generally less expensive than Vancouver based on the location closer to where most of the manufacturing takes place. Vancouver will have less expensive shipments from the west side of North America, but Calgary will be less expensive from anywhere in the east and most of central North America.

Supply chain costs favour Calgary

The supply chain costs comparison between Calgary and Vancouver only looked at sourcing product from outside of North America. The overall rates show that Calgary has an advantage over Vancouver based on the estimated numbers alone. When shipments from North America are included, the inbound numbers will favour Calgary even further.

Distribution centres moving to Calgary

According to the most recent census data, Calgary experienced the highest total population growth rate among all 41 metropolitan areas monitored by Statistics Canada. Additionally, both Calgary and Edmonton demonstrated significant growth driven by interprovincial migration, with a greater influx of residents from other provinces compared to the number of individuals leaving these Alberta cities for other regions.

The supply chain sector is heating up and more education programs are accepting more students related to the supply chain. Many companies have moved their Western Canadian distribution centres to the Calgary region. The airport in Calgary has had massive improvements and has enhanced the ability to ship and receive more air freight. Calgary is very well positioned geographically for transportation and the improvements of highways in all directions has helped with the transportation of freight. The completion of Highway 201 (Stoney Trail) in Calgary has also greatly enhanced the ability to move products throughout the city as well as to get product onto highways quicker.

To find out about City-owned land for sale visit calgary.ca/industrial

Get the Calgary advantage

Calgary is well suited for organizations looking to set up their business or grow their business in the future. Many have already arrived and there are opportunities for many more to experience the Calgary advantage.



https://en.wikipedia.org/wiki/Stoney_Trail

Appendix

FIGURE 32 Map of cities and regions used for the distribution model



FIGURE 33 Dry shipments from Calgary and Vancouver using 5000 total shipments

DRY SHIPMENTS				
Calgary costs	2021 population	% of Pop.	5000 shipments	Cost
Calgary (area)	1481806	19.0%	949.6	\$ 496,876.25
Edmonton, AB	1418118	18.2%	908.8	\$ 1,340,842.81
Red Deer, AB	100844	1.3%	64.6	\$ 76,375.88
Lethbridge, AB	123847	1.6%	79.4	\$ 113,147.24
Grande Prairie, AB	76376	1.0%	48.9	\$ 142,930.33
Medicine Hat, AB	64141	0.8%	41.1	\$ 66,922.32
Fort McMurray, AB	73837	0.9%	47.3	\$ 192,880.19
Saskatoon, SK	317480	4.1%	203.5	\$ 364,747.38
Regina, SK	249217	3.2%	159.7	\$ 245,985.19
Winnipeg, MB	749607	9.6%	480.4	\$ 1,220,354.93
Brandon, MB	51313	0.7%	32.9	\$ 99,653.40
Vancouver (area)	2642825	33.9%	1,693.6	\$ 4,961,824.34
Kamloops, BC	114142	1.5%	73.1	\$ 195,313.04
Kelowna, BC	222162	2.8%	142.4	\$ 321,420.41
Cranbrook/ Kimberley, BC	27040	0.3%	17.3	\$ 46,466.05
Prince George, BC	89490	1.1%	57.3	\$ 260,168.49
Total	7802245	100%	5000.0	\$10,145,908.22

DRY SHIPMENTS				
Vancouver costs	2021 population	% of Pop.	5000 shipments	Cost
Calgary (area)	1481806	19.0%	949.6	\$ 3,311,625.82
Edmonton, AB	1418118	18.2%	908.8	\$ 3,465,132.80
Red Deer, AB	100844	1.3%	64.6	\$ 260,423.30
Lethbridge, AB	123847	1.6%	79.4	\$ 354,439.02
Grande Prairie, AB	76376	1.0%	48.9	\$ 354,388.28
Medicine Hat, AB	64141	0.8%	41.1	\$ 206,354.06
Fort McMurray, AB	73837	0.9%	47.3	\$ 394,224.05
Saskatoon, SK	317480	4.1%	203.5	\$ 1,254,633.55
Regina, SK	249217	3.2%	159.7	\$ 815,856.17
Winnipeg, MB	749607	9.6%	480.4	\$ 3,199,571.03
Brandon, MB	51313	0.7%	32.9	\$ 300,218.74
Vancouver (area)	2642825	33.9%	1,693.6	\$ 1,032,936.38
Kamloops, BC	114142	1.5%	73.1	\$ 195,288.13
Kelowna, BC	222162	2.8%	142.4	\$ 385,101.40
Cranbrook/ Kimberley, BC	27040	0.3%	17.3	\$ 85,556.21
Prince George, BC	89490	1.1%	57.3	\$ 277,333.66
Total	7802245	100%	5000.0	\$15,893,082.61

FIGURE 34 Temperature controlled shipments from Calgary and Vancouver using 5000 total shipments

TEMPERATURE CONTROLLED SHIPMENTS				
Calgary costs	2021 population	% of Pop.	5000 shipments	Cost
Calgary (area)	1481806	19.0%	949.6	\$ 576,704.45
Edmonton, AB	1418118	18.2%	908.8	\$ 1,462,258.68
Red Deer, AB	100844	1.3%	64.6	\$ 79,962.90
Lethbridge, AB	123847	1.6%	79.4	\$ 121,463.45
Grande Prairie, AB	76376	1.0%	48.9	\$ 171,610.75
Medicine Hat, AB	64141	0.8%	41.1	\$ 74,366.43
Fort McMurray, AB	73837	0.9%	47.3	\$ 211,983.28
Saskatoon, SK	317480	4.1%	203.5	\$ 492,651.24
Regina, SK	249217	3.2%	159.7	\$ 305,126.21
Winnipeg, MB	749607	9.6%	480.4	\$ 1,509,047.53
Brandon, MB	51313	0.7%	32.9	\$ 138,390.88
Vancouver (area)	2642825	33.9%	1,693.6	\$ 5,626,706.10
Kamloops, BC	114142	1.5%	73.1	\$ 196,819.97
Kelowna, BC	222162	2.8%	142.4	\$ 343,742.17
Cranbrook/ Kimberley, BC	27040	0.3%	17.3	\$ 48,777.45
Prince George, BC	89490	1.1%	57.3	\$ 282,679.41
Total	7802245	100%	5000.0	\$11,642,290.88

TEMPERATURE CONTROLLED SHIPMENTS				
Vancouver costs	2021 population	% of Pop.	5000 shipments	Cost
Calgary (area)	1481806	19.0%	949.6	\$ 3,311,625.82
Edmonton, AB	1418118	18.2%	908.8	\$ 3,465,132.80
Red Deer, AB	100844	1.3%	64.6	\$ 260,423.30
Lethbridge, AB	123847	1.6%	79.4	\$ 354,439.02
Grande Prairie, AB	76376	1.0%	48.9	\$ 354,388.28
Medicine Hat, AB	64141	0.8%	41.1	\$ 206,354.06
Fort McMurray, AB	73837	0.9%	47.3	\$ 394,224.05
Saskatoon, SK	317480	4.1%	203.5	\$ 1,254,633.55
Regina, SK	249217	3.2%	159.7	\$ 815,856.17
Winnipeg, MB	749607	9.6%	480.4	\$ 3,199,571.03
Brandon, MB	51313	0.7%	32.9	\$ 300,218.74
Vancouver (area)	2642825	33.9%	1,693.6	\$ 1,032,936.38
Kamloops, BC	114142	1.5%	73.1	\$ 195,288.13
Kelowna, BC	222162	2.8%	142.4	\$ 385,101.40
Cranbrook/ Kimberley, BC	27040	0.3%	17.3	\$ 85,556.21
Prince George, BC	89490	1.1%	57.3	\$ 277,333.66
Total	7802245	100%	5000.0	\$15,893,082.61

FIGURE 35 Dry shipments from Calgary and Vancouver using 1000 total shipments

DRY SHIPMENTS				
Calgary costs	2021 population	% of Pop.	1000 shipments	Cost
Calgary (area)	1481806	19.0%	189.9	\$ 99,375.25
Edmonton, AB	1418118	18.2%	181.8	\$ 268,168.56
Red Deer, AB	100844	1.3%	12.9	\$ 15,275.18
Lethbridge, AB	123847	1.6%	15.9	\$ 22,629.45
Grande Prairie, AB	76376	1.0%	9.8	\$ 28,586.07
Medicine Hat, AB	64141	0.8%	8.2	\$ 13,384.46
Fort McMurray, AB	73837	0.9%	9.5	\$ 38,576.04
Saskatoon, SK	317480	4.1%	40.7	\$ 72,949.48
Regina, SK	249217	3.2%	31.9	\$ 49,197.04
Winnipeg, MB	749607	9.6%	96.1	\$ 244,070.99
Brandon, MB	51313	0.7%	6.6	\$ 19,930.68
Vancouver (area)	2642825	33.9%	338.7	\$ 992,364.87
Kamloops, BC	114142	1.5%	14.6	\$ 39,062.61
Kelowna, BC	222162	2.8%	28.5	\$ 64,284.08
Cranbrook/ Kimberley, BC	27040	0.3%	3.5	\$ 9,293.21
Prince George, BC	89490	1.1%	11.5	\$ 52,033.70
Total	7802245	100%	1000.0	\$ 2,029,181.64

DRY SHIPMENTS				
Vancouver costs	2021 population	% of Pop.	1000 shipments	Cost
Calgary (area)	1481806	19.0%	189.9	\$ 576,806.69
Edmonton, AB	1418118	18.2%	181.8	\$ 603,713.06
Red Deer, AB	100844	1.3%	12.9	\$ 46,394.33
Lethbridge, AB	123847	1.6%	15.9	\$ 64,245.08
Grande Prairie, AB	76376	1.0%	9.8	\$ 65,256.46
Medicine Hat, AB	64141	0.8%	8.2	\$ 36,393.37
Fort McMurray, AB	73837	0.9%	9.5	\$ 68,418.50
Saskatoon, SK	317480	4.1%	40.7	\$ 210,414.84
Regina, SK	249217	3.2%	31.9	\$ 136,827.40
Winnipeg, MB	749607	9.6%	96.1	\$ 536,600.69
Brandon, MB	51313	0.7%	6.6	\$ 50,349.74
Vancouver (area)	2642825	33.9%	338.7	\$ 159,932.97
Kamloops, BC	114142	1.5%	14.6	\$ 34,979.94
Kelowna, BC	222162	2.8%	28.5	\$ 68,521.39
Cranbrook/ Kimberley, BC	27040	0.3%	3.5	\$ 16,347.06
Prince George, BC	89490	1.1%	11.5	\$ 47,841.64
Total	7802245	100%	1000.0	\$ 2,723,043.15

FIGURE 36 Temperature controlled shipments from Calgary and Vancouver using 1000 total shipments

TEMPERATURE CONTROLLED SHIPMENTS				
Calgary costs	2021 population	% of Pop.	1000 shipments	Cost
Calgary (area)	1481806	19.0%	189.9	\$ 115,340.89
Edmonton, AB	1418118	18.2%	181.8	\$ 292,451.74
Red Deer, AB	100844	1.3%	12.9	\$ 15,992.58
Lethbridge, AB	123847	1.6%	15.9	\$ 24,292.69
Grande Prairie, AB	76376	1.0%	9.8	\$ 34,322.15
Medicine Hat, AB	64141	0.8%	8.2	\$ 14,873.29
Fort McMurray, AB	73837	0.9%	9.5	\$ 42,396.66
Saskatoon, SK	317480	4.1%	40.7	\$ 98,530.25
Regina, SK	249217	3.2%	31.9	\$ 61,025.24
Winnipeg, MB	749607	9.6%	96.1	\$ 301,809.51
Brandon, MB	51313	0.7%	6.6	\$ 27,678.18
Vancouver (area)	2642825	33.9%	338.7	\$ 1,125,341.22
Kamloops, BC	114142	1.5%	14.6	\$ 39,363.99
Kelowna, BC	222162	2.8%	28.5	\$ 68,748.43
Cranbrook/ Kimberley, BC	27040	0.3%	3.5	\$ 9,755.49
Prince George, BC	89490	1.1%	11.5	\$ 56,535.88
Total	7802245	100%	1000.0	\$ 2,328,458.18

TEMPERATURE CONTROLLED SHIPMENTS				
Vancouver costs	2021 population	% of Pop.	1000 shipments	Cost
Calgary (area)	1481806	19.0%	189.9	\$ 662,325.16
Edmonton, AB	1418118	18.2%	181.8	\$ 693,026.56
Red Deer, AB	100844	1.3%	12.9	\$ 52,084.66
Lethbridge, AB	123847	1.6%	15.9	\$ 70,887.80
Grande Prairie, AB	76376	1.0%	9.8	\$ 70,877.66
Medicine Hat, AB	64141	0.8%	8.2	\$ 41,270.81
Fort McMurray, AB	73837	0.9%	9.5	\$ 78,844.81
Saskatoon, SK	317480	4.1%	40.7	\$ 250,926.71
Regina, SK	249217	3.2%	31.9	\$ 163,171.23
Winnipeg, MB	749607	9.6%	96.1	\$ 639,914.21
Brandon, MB	51313	0.7%	6.6	\$ 60,043.75
Vancouver (area)	2642825	33.9%	338.7	\$ 206,587.28
Kamloops, BC	114142	1.5%	14.6	\$ 39,057.63
Kelowna, BC	222162	2.8%	28.5	\$ 77,020.28
Cranbrook/ Kimberley, BC	27040	0.3%	3.5	\$ 17,111.24
Prince George, BC	89490	1.1%	11.5	\$ 55,466.73
Total	7802245	100%	1000.0	\$ 3,178,616.52

FIGURE 37 Dry shipments from Calgary and Vancouver using 500 total shipments

DRY SHIPMENTS				
Calgary costs	2021 population	% of Pop.	500 shipments	Cost
Calgary (area)	1481806	19.0%	95.0	\$ 49,687.63
Edmonton, AB	1418118	18.2%	90.9	\$ 134,084.28
Red Deer, AB	100844	1.3%	6.5	\$ 7,637.59
Lethbridge, AB	123847	1.6%	7.9	\$ 11,314.72
Grande Prairie, AB	76376	1.0%	4.9	\$ 14,293.03
Medicine Hat, AB	64141	0.8%	4.1	\$ 6,692.23
Fort McMurray, AB	73837	0.9%	4.7	\$ 19,288.02
Saskatoon, SK	317480	4.1%	20.3	\$ 36,474.74
Regina, SK	249217	3.2%	16.0	\$ 24,598.52
Winnipeg, MB	749607	9.6%	48.0	\$ 122,035.49
Brandon, MB	51313	0.7%	3.3	\$ 9,965.34
Vancouver (area)	2642825	33.9%	169.4	\$ 496,182.43
Kamloops, BC	114142	1.5%	7.3	\$ 19,531.30
Kelowna, BC	222162	2.8%	14.2	\$ 32,142.04
Cranbrook/ Kimberley, BC	27040	0.3%	1.7	\$ 4,646.60
Prince George, BC	89490	1.1%	5.7	\$ 26,016.85
Total	7802245	100%	500.0	\$ 1,014,590.82

DRY SHIPMENTS				
Vancouver costs	2021 population	% of Pop.	500 shipments	Cost
Calgary (area)	1481806	19.0%	95.0	\$ 288,403.34
Edmonton, AB	1418118	18.2%	90.9	\$ 301,856.53
Red Deer, AB	100844	1.3%	6.5	\$ 23,197.16
Lethbridge, AB	123847	1.6%	7.9	\$ 32,122.54
Grande Prairie, AB	76376	1.0%	4.9	\$ 32,628.23
Medicine Hat, AB	64141	0.8%	4.1	\$ 18,196.68
Fort McMurray, AB	73837	0.9%	4.7	\$ 34,209.25
Saskatoon, SK	317480	4.1%	20.3	\$ 105,207.42
Regina, SK	249217	3.2%	16.0	\$ 68,413.70
Winnipeg, MB	749607	9.6%	48.0	\$ 268,300.34
Brandon, MB	51313	0.7%	3.3	\$ 25,174.87
Vancouver (area)	2642825	33.9%	169.4	\$ 79,966.49
Kamloops, BC	114142	1.5%	7.3	\$ 17,489.97
Kelowna, BC	222162	2.8%	14.2	\$ 34,260.69
Cranbrook/ Kimberley, BC	27040	0.3%	1.7	\$ 8,173.53
Prince George, BC	89490	1.1%	5.7	\$ 23,920.82
Total	7802245	100%	500.0	\$ 1,361,521.58

FIGURE 38 Temperature controlled shipments from Calgary and Vancouver using 500 total shipments

TEMPERATURE CONTROLLED SHIPMENTS				
Calgary Costs	2021 population	% of Pop.	500 shipments	Cost
Calgary (area)	1481806	19.0%	95.0	\$ 57,670.44
Edmonton, AB	1418118	18.2%	90.9	\$ 146,225.87
Red Deer, AB	100844	1.3%	6.5	\$ 7,996.29
Lethbridge, AB	123847	1.6%	7.9	\$ 12,146.34
Grande Prairie, AB	76376	1.0%	4.9	\$ 17,161.07
Medicine Hat, AB	64141	0.8%	4.1	\$ 7,436.64
Fort McMurray, AB	73837	0.9%	4.7	\$ 21,198.33
Saskatoon, SK	317480	4.1%	20.3	\$ 49,265.12
Regina, SK	249217	3.2%	16.0	\$ 30,512.62
Winnipeg, MB	749607	9.6%	48.0	\$ 150,904.75
Brandon, MB	51313	0.7%	3.3	\$ 13,839.09
Vancouver (area)	2642825	33.9%	169.4	\$ 562,670.61
Kamloops, BC	114142	1.5%	7.3	\$ 19,682.00
Kelowna, BC	222162	2.8%	14.2	\$ 34,374.22
Cranbrook/ Kimberley, BC	27040	0.3%	1.7	\$ 4,877.74
Prince George, BC	89490	1.1%	5.7	\$ 28,267.94
Total	7802245	100%	500.0	\$ 1,164,229.09

TEMPERATURE CONTROLLED SHIPMENTS				
Vancouver costs	2021 population	% of Pop.	500 shipments	Cost
Calgary (area)	1481806	19.0%	95.0	\$ 331,162.58
Edmonton, AB	1418118	18.2%	90.9	\$ 346,513.28
Red Deer, AB	100844	1.3%	6.5	\$ 26,042.33
Lethbridge, AB	123847	1.6%	7.9	\$ 35,443.90
Grande Prairie, AB	76376	1.0%	4.9	\$ 35,438.83
Medicine Hat, AB	64141	0.8%	4.1	\$ 20,635.41
Fort McMurray, AB	73837	0.9%	4.7	\$ 39,422.40
Saskatoon, SK	317480	4.1%	20.3	\$ 125,463.35
Regina, SK	249217	3.2%	16.0	\$ 81,585.62
Winnipeg, MB	749607	9.6%	48.0	\$ 319,957.10
Brandon, MB	51313	0.7%	3.3	\$ 30,021.87
Vancouver (area)	2642825	33.9%	169.4	\$ 103,293.64
Kamloops, BC	114142	1.5%	7.3	\$ 19,528.81
Kelowna, BC	222162	2.8%	14.2	\$ 38,510.14
Cranbrook/ Kimberley, BC	27040	0.3%	1.7	\$ 8,555.62
Prince George, BC	89490	1.1%	5.7	\$ 27,733.37
Total	7802245	100%	500.0	\$ 1,589,308.26

FIGURE 39 Dry shipments from Calgary and Vancouver using 100 total shipments

DRY SHIPMENTS				
Calgary costs	2021 population	% of Pop.	100 shipments	Cost
Calgary (area)	1481806	19.0%	19.0	\$ 9,937.53
Edmonton, AB	1418118	18.2%	18.2	\$ 26,816.86
Red Deer, AB	100844	1.3%	1.3	\$ 1,527.52
Lethbridge, AB	123847	1.6%	1.6	\$ 2,262.94
Grande Prairie, AB	76376	1.0%	1.0	\$ 2,858.61
Medicine Hat, AB	64141	0.8%	0.8	\$ 1,338.45
Fort McMurray, AB	73837	0.9%	0.9	\$ 3,857.60
Saskatoon, SK	317480	4.1%	4.1	\$ 7,294.95
Regina, SK	249217	3.2%	3.2	\$ 4,919.70
Winnipeg, MB	749607	9.6%	9.6	\$ 24,407.10
Brandon, MB	51313	0.7%	0.7	\$ 1,993.07
Vancouver (area)	2642825	33.9%	33.9	\$ 99,236.49
Kamloops, BC	114142	1.5%	1.5	\$ 3,906.26
Kelowna, BC	222162	2.8%	2.8	\$ 6,428.41
Cranbrook/ Kimberley, BC	27040	0.3%	0.3	\$ 929.32
Prince George, BC	89490	1.1%	1.1	\$ 5,203.37
Total	7802245	100%	100.0	\$ 202,918.16

DRY SHIPMENTS				
Vancouver costs	2021 population	% of Pop.	100 shipments	Cost
Calgary (area)	1481806	19.0%	19.0	\$ 57,680.67
Edmonton, AB	1418118	18.2%	18.2	\$ 60,371.31
Red Deer, AB	100844	1.3%	1.3	\$ 4,639.43
Lethbridge, AB	123847	1.6%	1.6	\$ 6,424.51
Grande Prairie, AB	76376	1.0%	1.0	\$ 6,525.65
Medicine Hat, AB	64141	0.8%	0.8	\$ 3,639.34
Fort McMurray, AB	73837	0.9%	0.9	\$ 6,841.85
Saskatoon, SK	317480	4.1%	4.1	\$ 21,041.48
Regina, SK	249217	3.2%	3.2	\$ 13,682.74
Winnipeg, MB	749607	9.6%	9.6	\$ 53,660.07
Brandon, MB	51313	0.7%	0.7	\$ 5,034.97
Vancouver (area)	2642825	33.9%	33.9	\$ 15,993.30
Kamloops, BC	114142	1.5%	1.5	\$ 3,497.99
Kelowna, BC	222162	2.8%	2.8	\$ 6,852.14
Cranbrook/ Kimberley, BC	27040	0.3%	0.3	\$ 1,634.71
Prince George, BC	89490	1.1%	1.1	\$ 4,784.16
Total	7802245	100%	100.0	\$ 272,304.32

FIGURE 40 Temperature controlled shipments from Calgary and Vancouver using 100 total shipments

TEMPERATURE CONTROLLED SHIPMENTS				
Calgary costs	2021 population	% of Pop.	100 shipments	Cost
Calgary (area)	1481806	19.0%	19.0	\$ 11,534.09
Edmonton, AB	1418118	18.2%	18.2	\$ 29,245.17
Red Deer, AB	100844	1.3%	1.3	\$ 1,599.26
Lethbridge, AB	123847	1.6%	1.6	\$ 2,429.27
Grande Prairie, AB	76376	1.0%	1.0	\$ 3,432.21
Medicine Hat, AB	64141	0.8%	0.8	\$ 1,487.33
Fort McMurray, AB	73837	0.9%	0.9	\$ 4,239.67
Saskatoon, SK	317480	4.1%	4.1	\$ 9,853.02
Regina, SK	249217	3.2%	3.2	\$ 6,102.52
Winnipeg, MB	749607	9.6%	9.6	\$ 30,180.95
Brandon, MB	51313	0.7%	0.7	\$ 2,767.82
Vancouver (area)	2642825	33.9%	33.9	\$ 112,534.12
Kamloops, BC	114142	1.5%	1.5	\$ 3,936.40
Kelowna, BC	222162	2.8%	2.8	\$ 6,874.84
Cranbrook/ Kimberley, BC	27040	0.3%	0.3	\$ 975.55
Prince George, BC	89490	1.1%	1.1	\$ 5,653.59
Total	7802245	100%	100.0	\$ 232,845.82

TEMPERATURE CONTROLLED SHIPMENTS				
Vancouver costs	2021 population	% of Pop.	100 shipments	Cost
Calgary (area)	1481806	19.0%	19.0	\$ 66,232.52
Edmonton, AB	1418118	18.2%	18.2	\$ 69,302.66
Red Deer, AB	100844	1.3%	1.3	\$ 5,208.47
Lethbridge, AB	123847	1.6%	1.6	\$ 7,088.78
Grande Prairie, AB	76376	1.0%	1.0	\$ 7,087.77
Medicine Hat, AB	64141	0.8%	0.8	\$ 4,127.08
Fort McMurray, AB	73837	0.9%	0.9	\$ 7,884.48
Saskatoon, SK	317480	4.1%	4.1	\$ 25,092.67
Regina, SK	249217	3.2%	3.2	\$ 16,317.12
Winnipeg, MB	749607	9.6%	9.6	\$ 63,991.42
Brandon, MB	51313	0.7%	0.7	\$ 6,004.37
Vancouver (area)	2642825	33.9%	33.9	\$ 20,658.73
Kamloops, BC	114142	1.5%	1.5	\$ 3,905.76
Kelowna, BC	222162	2.8%	2.8	\$ 7,702.03
Cranbrook/ Kimberley, BC	27040	0.3%	0.3	\$ 1,711.12
Prince George, BC	89490	1.1%	1.1	\$ 5,546.67
Total	7802245	100%	100.0	\$ 317,861.65