Construction Cost Survey 2010

Prepared for

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TABLE OF CONTENTS

Introduction

In January 2010, the eighteenth annual survey of building supply, concrete, and shipping companies was conducted to determine the cost of a market basket of construction materials in communities throughout Alaska. The survey simulates contractor pricing for a market basket of materials used in the construction of a model home. The market basket represents approximately 30 percent of the materials used in the construction of the model home; however, it does not represent 30 percent of the total cost to build the model home. Figure 1 shows the floor plan of the model house used in this survey.

The market basket provides a benchmark for comparing costs between the urban communities of Anchorage, Fairbanks, Juneau, Kenai, Ketchikan, Kodiak, Sitka, and Wasilla, as well as the rural communities of Barrow, Bethel, and Nome. In addition to the materials included in the market basket, suppliers also report the cost of doors and windows for the model home, while shipping companies provide the cost of transporting the market basket materials from Seattle to each community. A complete list of the market basket items and their specifications is included in Table 1.

Construction techniques, building requirements, and styles vary greatly from region to region. For this reason, not all of the materials surveyed are necessarily used in all areas. Beginning in 2003, Barrow, Bethel, and Nome included metal roofing, which is more common in rural areas, in their respective market baskets instead of the asphalt shingles used in urban areas. Costs for the three rural areas surveyed, Barrow, Bethel, and Nome, exclude concrete and rebar since pilings support houses above permafrost in these locations instead of slab foundations. Unless otherwise specified, the market basket prices quoted exclude concrete, rebar, doors, and windows.

Comparing 2010 to 2009

Alaska Market Baskets

- Eight of the 11 communities experienced increases in the overall cost of market basket materials. Increases ranged from 1 percent in Kenai, Bethel and Nome to 10 percent in Anchorage. The remaining three communities experienced decreases in the overall cost of the market basket materials. The percentage decreases ranged from 1 percent (Wasilla) to 7 percent (Kodiak).

Seattle Market Basket

- Although 10 out of 15 individual core items increased in cost this year, the impact on cost of the Seattle market basket as a whole was minimal.

- The Seattle market basket decreased $15, or less than 1 percent from one year ago bringing the total cost to $16,991 in 2010. The most significant percentage decreases in individual items were seen in truss and single breakers, which dropped by 17 and 38 percent, respectively.

Concrete

- Only Kenai and Kodiak experienced price increases in concrete this year – 4 and 5 percent, respectively.

- The cost of concrete decreased in five locations and stayed the same in one. Percentage decreases ranged from less than 1 percent (Wasilla) to 13 percent (Ketchikan).

- Although Anchorage saw a 6 percent decrease this year, dropping to $3,411, Wasilla, with its close proximity to Anchorage, measures in with the least expensive concrete, at $3,352. Kodiak continues to be the most expensive locale, at $6,600 – almost twice the cost of concrete in Wasilla.

Rebar

- The price of rebar decreased in all urban locations, including Seattle, which is contrary to 2009 when rebar increased in these areas. In 2010, all locations experienced double-digit decreases except Fairbanks (7 percent). Juneau, with the most significant decrease (22 percent), had the lowest cost of rebar in 2010 ($575).

- Despite a 7 percent decrease in Fairbanks from the previous year, rebar was still 68 percent more in Fairbanks than the least expensive area, Juneau.

- The price of rebar in Seattle fell in 2010, returning to its 2008 price of $637. Seattle's price ranks it in the middle of the surveyed areas.

Doors and Windows

- Six Alaska locations experienced increases in the total cost of doors and windows in 2010. The percentage increases ranged from 2 percent in Ketchikan to 28 percent in Anchorage. Last year, only one location (Wasilla) had a lower price than Anchorage for doors and windows, whereas this year six locations had lower costs than Anchorage.

- Percentage decreases in the costs of doors and windows ranged from 7 percent in Kenai to 16 percent in Sitka. With Sitka's decrease of $654 in 2010, only two locations cost less; Wasilla ($3,115) and Kenai ($3,268).

- Seattle's cost of doors and windows was the fourth highest in 2010 at $4,531. Seattle experienced a 16 percent increase in the price of doors and windows – the third highest increase of all locations surveyed.

Shipping Costs from Seattle

- The cost of transporting the building materials from Seattle increased in all areas except Fairbanks. The percentage increases ranged from two percent in Wasilla to 23 percent in Sitka. Shipping costs in Fairbanks decreased 5 percent to $7,752.

- In Barrow, shipping costs rose 16 percent or $4,285, the largest change in terms of dollars of any surveyed area in 2010.

Construction Costs Around the State

Building materials cost more in rural areas than urban areas, and more in northern Alaska than in Southcentral and Southeast Alaska. The main reason for this cost differential is the added expense of transportation – the further a community is from Seattle, the more expensive the price of building materials. The lack of infrastructure in rural areas requires materials to be barged or flown to the different areas and contributes to higher prices.

- Statewide, the weighted-average cost of the market basket ranged from a low of $20,794 in Anchorage to a high of $51,741 in Barrow.

- The most expensive urban location in 2010 was Kodiak, with a total market basket cost of $23,185. Bethel was the least expensive rural location with a cost of $33,359.

- With Kodiak's market basket decrease of 7 percent in 2010, the disparity between the most expensive urban location and the least expensive rural location increased 67 percent, from $6,103 to $10,174.

- Anchorage had the largest dollar increase among all locations for four specific items: truss, CDX plywood, 2x4 studs and type X sheetrock. The two main items driving up the cost in Anchorage were truss and shingles, with price spikes of $635 and $431, respectively.

- Three items decreased in cost in 2010: T1-11 siding, electric wire, and single breakers. These items reduced the total cost of the market basket by $366. However, these decreases were not enough to offset the increases in other market basket items

- The market basket totals in Anchorage and Barrow increased by $1,856 each in 2010. This is a 10 percent increase for Anchorage and 4 percent increase for Barrow. Coincidently, Kodiak's market basket saw a decrease in price of $1,856, which was a reduction of 7 percent for that location.

- Eight of Barrow's market basket items increased this year expanding the overall cost by $2,208. Underlay alone caused Barrow's market basket to increase by $1,054.

- Fairbanks reported a market basket cost of $22,722, a decrease of 3 percent from last year. Price declines were seen in 11 of the 15 items, and three individual items saw significant decreases in price; truss (down $381), T1-11 siding (down $396), and R-38 insulation (down $368).

- Juneau's core market basket increased by $534, or 3 percent, in 2010 to $21,219. While T1-11 siding saw a substantial drop of $396, the price of ten other market basket items rose. Factoring in concrete and rebar, with a combined decrease of $684 from last year, the result is a 1 percent decrease in the overall Juneau cost.

- Ketchikan had the most significant decrease in the price of concrete and rebar with a drop of $802. While the core market basket supplies rose 7 percent, the overall cost of materials in Ketchikan rose 2 percent, offset by price decreases for concrete and rebar.

- Prices for market basket items were mixed in Sitka for 2010 - all individual items saw large swings in prices, with the exception of concrete. Shingles and T1-11 siding saw the largest increases, rising $720 and $631 respectively. Plain sheetrock and R-38 insulation saw the largest decrease, falling by $366 and $309 respectively. Despite swings in the prices of individual items, Sitka's overall market basket cost was unchanged from one year ago.

Alaska Suppliers Comparison Index

Fluctuations in cost can best be examined in terms of the yearly change each area experiences in relation to a point of reference. One way to do this is to establish an index comparing each community's market basket cost to a benchmark. The Alaska Suppliers Comparison Index uses the largest city in Alaska, Anchorage, as its benchmark. To create this index, Anchorage's market basket cost is given an index value of 100. Dividing the average cost for a survey area by the Anchorage value ($20,794) produces the index value for that community.

- The Anchorage market basket cost increased $1,856, or 10 percent in 2010. Since Anchorage had the largest percentage increase in market basket price, all other areas saw declines in index values.

- The most significant change occurred with Kodiak. With the largest percentage decrease among all market baskets (7 percent), Kodiak's index value dropped from 132, in 2009 to 111, in 2010, bringing it closer in line to the Anchorage market basket cost.

- In 2009, Ketchikan was closest to Anchorage with an index value of 104. In 2010, both Sitka and Wasilla were equal to Anchorage, each having index values of 100. Ketchikan and Juneau followed close behind at 101 and 102, respectively.

- In 2010, the index value spread, (the difference between the highest and lowest index values), among urban locations fell to 11, down from 32 in 2009.

Construction Costs in Alaska vs. Seattle

Suppliers from Seattle, Washington, and the surrounding metropolitan area are included in the Alaska Construction Cost Survey as some contractors acquire their materials from outside Alaska. For Alaska suppliers, the market basket price already includes the cost of shipping the goods to the worksite in their community. Transportation costs are added to Seattle's market basket total to estimate what local contractors would pay if they bought directly from Seattle suppliers and shipped their materials north to Alaska. Seattle prices cannot accurately be compared to prices in the three rural areas because the Seattle market basket and the total calculated shipping costs include asphalt shingles rather than metal roofing. For this reason, the following points pertain to the eight urban communities only.

- For the second consecutive year, the Seattle market basket decreased less than 1 percent, to $16,976. Also, for the second consecutive year, builders in all urban Alaska locations, except Ketchikan, would encounter savings by purchasing the market basket items locally instead of buying in Seattle and having them shipped north.

- The savings to Ketchikan builders purchasing in Seattle and shipping to Alaska increased to $1,518 in 2010, from $517 from one year ago. The savings for all other locations purchasing locally range from $5 (Juneau) to $3,636 (Kodiak). The disparity between local and Seattle prices shrunk a bit this year, as the largest savings last year were in Anchorage ($4,248).

- With the exception of Anchorage and Juneau, all of Alaska's urban locations experienced an increase in their local/Seattle pricing spread. The remaining six urban communities encountered an increase in savings ranging from $328 in Wasilla, to $2,180 in Kodiak.

Transportation Index for Market Basket from Seattle

One of the primary factors determining differences in building costs in Alaska is transportation. The cost of transporting materials from Seattle is directly related to the distance from Seattle to the surveyed communities. The Transportation Index uses basic market basket items rather than substituted items to compare the different communities. Metal roofing is lighter than asphalt shingles and, unlike shingles, can be shipped inside or outside a container. In the rural areas where metal roofing is substituted, the cost of shipping the roofing materials could be as much as two-thirds less than asphalt shingles.

Like the Alaska Suppliers Comparison Index, the Transportation Index assigns Anchorage an index value of 100. Dividing the average value for a survey area by the Anchorage shipping cost ($6,575) produces the index value for that community.

- Shipping costs to Anchorage increased $200, or 3 percent, in 2010. Areas with cost increases of greater than 3 percent experienced increases in their index values. Areas with cost decreases, or increases of less than 3 percent, experienced declines in their index values.

- For the second year in a row, Barrow experienced the largest index value change as well as the largest dollar increase in shipping costs). In 2010, Barrow's index value climbed 54 points to reach 408 while one year ago, the index value rose by nearly the same amount. Barrow's index value is 173 points above Nome's value, the next most expensive area to ship materials.

- A 23 percent increase in shipping costs caused Sitka's index value to climb 18 points in 2010, bringing the index value to over 100 for the first time. With Sitka's higher value, Ketchikan and Juneau were the only two areas in 2010 to have values below 100.

- Fairbanks was the only community that experienced a decrease in its shipping cost, which fell or 5 percent, to $7,752. The index value of Fairbanks dropped by 10 points to 118.

- Wasilla was the only other location to see an index value decrease in 2010 - the index value in Wasilla dropped one point to 112.

- Ketchikan is the closest city in proximity to Seattle of the 11 communities surveyed. Therefore, shipping costs to Alaska's "First City" remain the lowest. Ketchikan's shipping costs of $2,597, and corresponding index value of 39, are less than half that of Anchorage's. On the opposite end of the scale, shipping costs to Barrow, the furthest city from Seattle, are $26,836. This figure is four times the cost of shipping to Anchorage and over ten times the cost of shipping to Ketchikan.

Alaska Construction Cost Survey Methodology

The Alaska Department of Labor and Workforce Development's Research and Analysis Section conducts the Alaska Construction Cost Survey annually on behalf of the Alaska Housing Finance Corporation.

Twenty-six local suppliers in Alaska and ten in Washington participated in this year's survey. Alaska participants represent ten unique firms, as some companies have stores in multiple locations. Similarly, Washington participants represent five unique firms. In addition, 17 concrete suppliers and seven shipping companies participated in this year's survey.

When surveyed, building suppliers are asked what discounts, if any, they provide to contractors when purchasing a "package" of building materials sufficient to build a single family home. If a discount is given, it is then factored into the market basket prices that the supplier reported. The same is true for concrete suppliers.

To determine the cost of transportation, carriers are given the weight (approximately 49,000 pounds) and the volume (about 2,000 cubic feet) of the materials. These measurements generally require a 20-foot platform and a 20-foot container for all of the materials. Another assumption is that all of the fees for required services are included in the reported cost of the shipment. These services include loading/unloading, protection and fastening of goods, and delivery to the building site. The shippers' market basket includes asphalt shingles rather than metal roofing.

It is expected that larger building supply firms get volume discounts that are then passed on to the contractor. To reflect the vendors' respective market shares, respondents' values are weighted by the size of the respective firms. For Alaska businesses, size is based on the reported number of employees from the Alaska Department of Labor and Workforce Development's employment security tax wage database for the second quarter of 2009. America's Labor Market Information System provided 2010 employee counts for Seattle suppliers.

Changes in the makeup of the market basket make year-to-year comparisons difficult. In 2001, cedar bevel siding was replaced with T1-11 siding. This lowered not only the cost of the market basket, but also the transportation costs. In 2002, Barrow did not report prices for asphalt shingles because most new construction on the North Slope incorporates metal roofing materials instead. This affected both the transportation costs and the market basket total. As noted previously, in 2003, metal roofing was substituted for asphalt shingles in the three rural areas.

Appendix A
Construction Cost Survey Tables and Charts

Average Price for Construction Materials — Table 1

Alaska Suppliers
2010

					Urban								Rural *		
Market Basket Items	**Quantity**	**Units**	**Size**	**Length**	**Anchorage**	**Fairbanks**	**Juneau**	**Kenai**	**Ketchikan**	**Kodiak**	**Sitka**	**Wasilla**	**Barrow**	**Bethel**	**Nome**
BCI 60 Series	768	ft	14"		3,208	$2,547	$2,863	$3,780	$2,046	$3,548	$2,412	$2,399	$2,880	$2,263	$4,908
2-4-1 T&G FF Underlay 4' x 8'	62	pcs	1 1/8"		2,186	2,304	2,154	2,311	2,109	2,356	2,644	2,196	7,253	3,702	4,183
T-111 8" Center Groove 4' x 10' Siding	60	pcs	5/8"		2,582	3,809	3,134	3,416	2,506	3,289	3,611	3,201	5,999	4,181	4,858
CDX 4' x 8' #53	106	pcs	5/8"		1,812	1,947	1,844	2,046	1,812	2,014	2,051	1,967	6,359	3,248	3,716
Studs #2 & btr Kiln-dried	164	pcs	2" x 4"	92 5/8"	359	399	377	393	368	436	336	451	1,179	810	850
Studs #2 & btr #14 Kiln-dried	263	pcs	2" x 6"	92 5/8"	833	956	846	927	826	1,079	836	1,090	2,627	2,096	2,012
4' x 12' Plain Sheetrock #84	95	pcs	1/2"		1,498	1,685	1,669	1,600	1,518	1,510	1,316	1,471	5,699	2,274	3,416
4' x 12' Type X Sheetrock #109	68	pcs	5/8"		1,257	1,403	1,356	1,347	1,381	1,353	1,121	1,263	4,759	2,806	2,996
Fiberglass Bat Insulation (2,560 sq ft)	40	bags	R-38" x 24"	64 sq ft	2,269	2,404	2,133	2,171	2,765	1,880	1,928	2,075	3,920	4,785	4,685
Fiberglass Bat Insulation (2,034 sq ft)	30	bags	R-21" x 15"	68 sq ft	1,454	1,479	1,207	1,346	2,281	1,470	1,191	1,289	2,460	2,580	2,197
NMB Electric Wire	3	boxes		250'	189	177	223	195	267	240	240	196	390	276	269
Single Breaker	15	pcs	15 Amp		59	76	118	119	123	134	182	77	157	175	122
Copper Pipe Type 'M'	150	ft	3/4"		216	231	282	240	134	250	276	236	300	537	642
ABS Pipe	100	ft	3"		135	138	148	145	179	158	184	140	390	308	315
3 Tab Shingles Brown	102	bundles			2,737	3,167	2,865	2,773	2,776	3,468	2,514	2,765	N/A	N/A	N/A
Metal Roofing	3,215	sq ft	3' x 20'		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7,369	3,318	5,691
Total (Without Concrete & Rebar)					**$20,794**	**$22,722**	**$21,219**	**$22,809**	**$21,091**	**$23,185**	**$20,842**	**$20,816**	**$51,741**	**$33,359**	**$40,860**
Concrete	30	yds			3,411	3,362	4,575	3,955	4,590	6,600	5,580	3,352			
#4 Rebar	93	pcs	1/2"	20'	599	965	575	711	694	627	811	590			
Total (With Concrete & Rebar)					**$24,804**	**$27,049**	**$26,369**	**$27,475**	**$26,375**	**$30,412**	**$27,001**	**$24,758**			

* Rural areas exclude concrete & rebar

Average Price for Doors & Windows — Table 2

Alaska Suppliers
2010

				Urban								Rural		
Market Basket Items	**Quantity**	**Units**	**Size**	**Anchorage**	**Fairbanks**	**Juneau**	**Kenai**	**Ketchikan**	**Kodiak**	**Sitka**	**Wasilla**	**Barrow**	**Bethel**	**Nome**
R7 Metal Insulated Doors with 6" Jamb	2	pcs	3'	$442	$386	$413	$461	$412	$558	$560	$476	$800	$699	$621
Low E Argon Windows with R > 2.8 Vinyl Casements	3	pcs	2.6' x 3'	$756	$772	$701	$599	$652	$657	$615	$512	$960	$1,111	$875
Low E Argon Windows with R > 2.8 Vinyl Casements, 5.7 E-Gress	6	pcs	2.6' x 4'	$1,767	$1,671	$1,587	$1,369	$1,418	$1,500	$1,146	$1,235	$2,280	$2,491	$1,884
Low E Argon Windows with R > 2.8 Vinyl Casements, 5.7 E-Gress	2	pcs	8.0' x 4'	$1,438	$1,896	$1,199	$839	$1,147	$1,800	$1,136	$892	$1,140	$769	$873
Total Cost of Doors & Windows				**$4,403**	**$4,725**	**$3,900**	**$3,268**	**$3,629**	**$4,515**	**$3,457**	**$3,115**	**$5,180**	**$5,070**	**$4,253**

Average Price for Construction Materials — Table 3

Seattle Suppliers (without Concrete, Doors and Windows)
2010

Market Basket Items	**Quantity**	**Units**	**Size**	**Length**	**Seattle Area**
BCI 60 Series	768	ft	14"		$1,960
2-4-1 T&G FF Underlay 4' x 8'	62	pcs	1 1/8"		1,835
T-111 8" Center Groove 4' x 10' Siding	60	pcs	5/8"		2,819
CDX 4' x 8' #53	106	pcs	5/8"		1,561
Studs #2 & btr Kiln-dried	164	pcs	2" x 4"	92 5/8"	325
Studs #2 & btr #14 Kiln-dried	263	pcs	2" x 6"	92 5/8"	799
4' x 12' Plain Sheetrock #84	95	pcs	1/2"		948
4' x 12' Type X Sheetrock #109	68	pcs	5/8"		907
3 Tab Shingles Brown	102	bundles			1,897
Fiberglass Bat Insulation (2,560 sq ft)	40	bags	R-38" x 24"	64 sq ft	2,119
Fiberglass Bat Insulation (2,034 sq ft)	30	bags	R-21" x 15"	68 sq ft	1,251
NMB Electric Wire	3	boxes		250'	186
Single Breaker	15	pcs	15 Amp		58
Copper Pipe Type 'M'	150	ft	3/4"		218
ABS Pipe	100	ft	3"		93
Total (Without Rebar)					**$16,976**
#4 Rebar	93	pcs	1/2"	20'	637
Total (With Rebar)					**$17,613**

Transportation Cost of Market Basket **Table 4**

Shipping and Handling (Without Concrete, Rebar, Doors and Windows)
2007

Destination	Seattle
Ketchikan	$2,597
Juneau	4,248
Sitka	7,235
Anchorage	6,575
Wasilla	7,365
Kenai	8,363
Fairbanks	7,752
Kodiak	9,845
Bethel	12,683
Nome	15,420
Barrow	26,836

Notes:

Weighted average using 2009 Q2 ODB202 or 2010 ALMIS Employer Database (1st Edition)

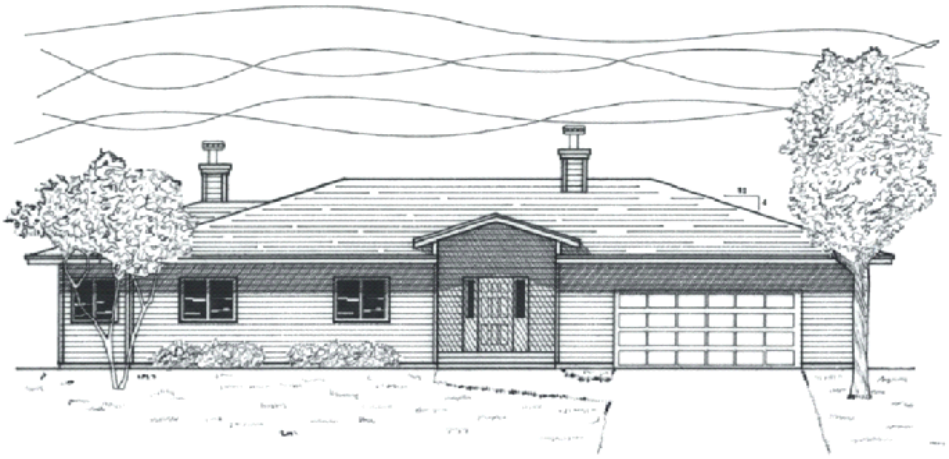
Totals may not add up due to rounding.

Floor Plan

Model Home
2010

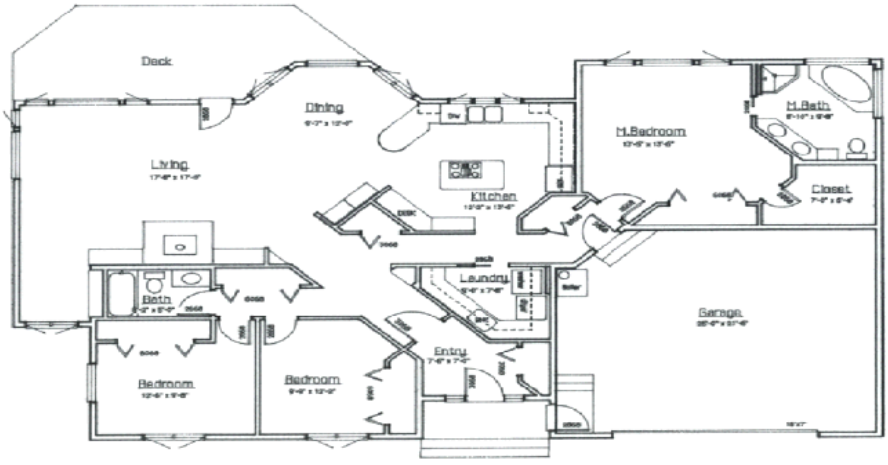
Figure 1

Artist Rendering of Model Home



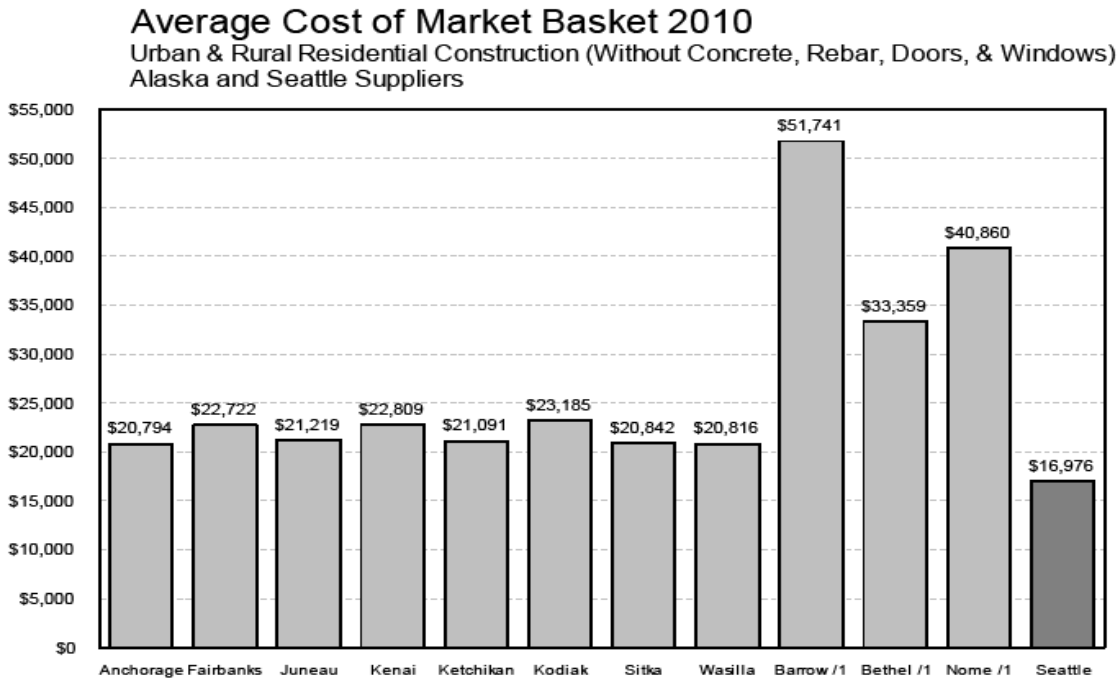
FRONT ELEVATION

Floor Plan of Model Home



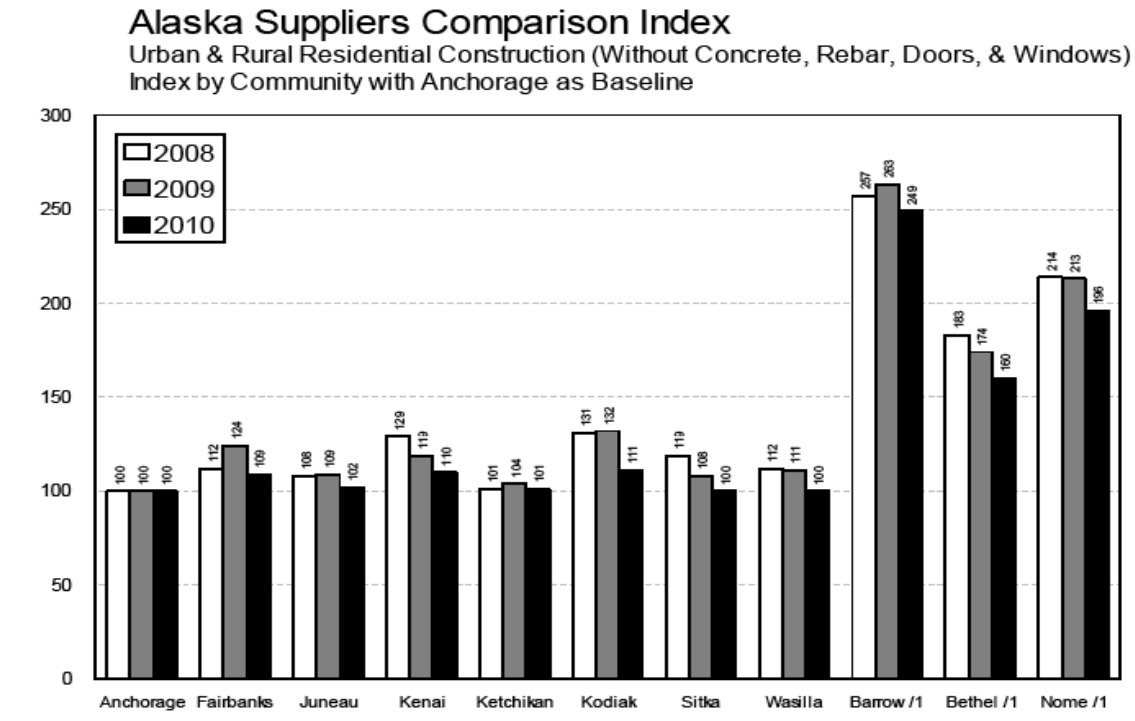
Floor Plan
1923 SQ. FT.

Graph 1



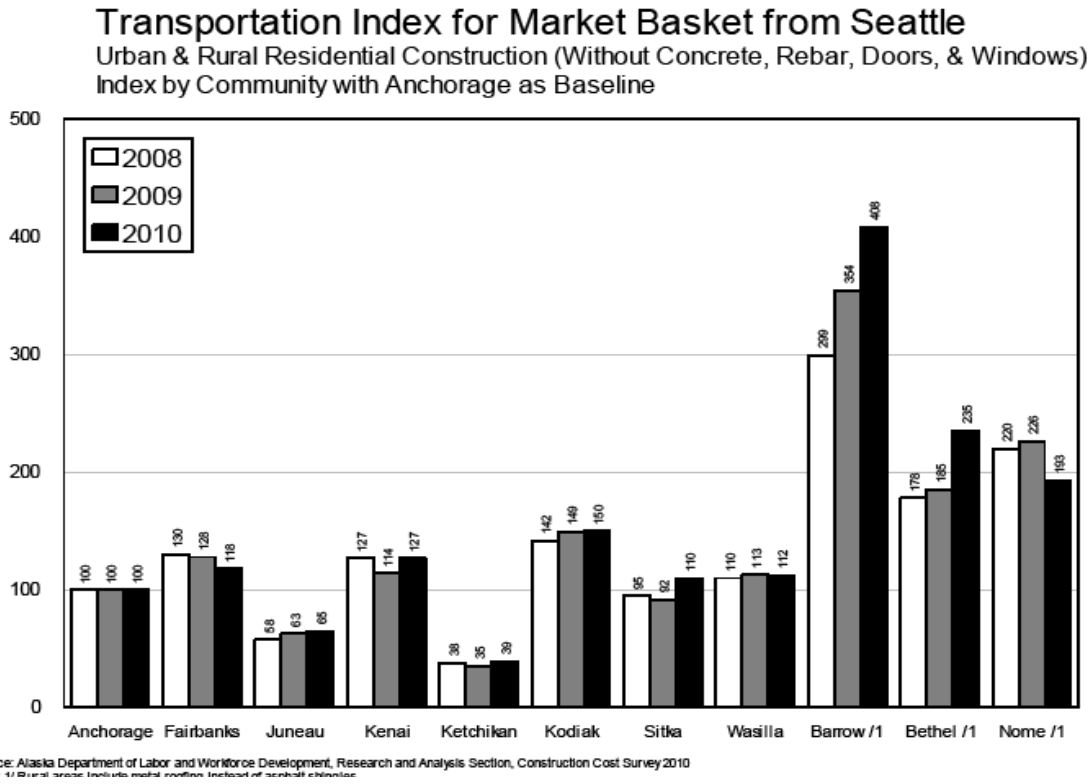
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2010
Note: 1/ Rural areas include metal roofing instead of asphalt shingles.

Graph 2



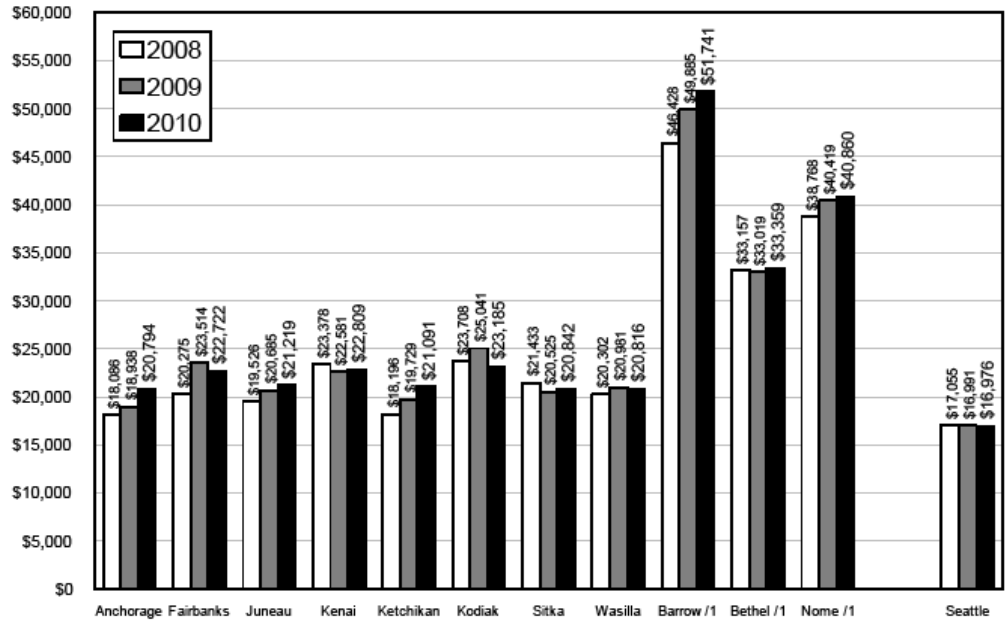
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2010
Note: 1/ Rural areas include metal roofing instead of asphalt shingles.

Graph 3



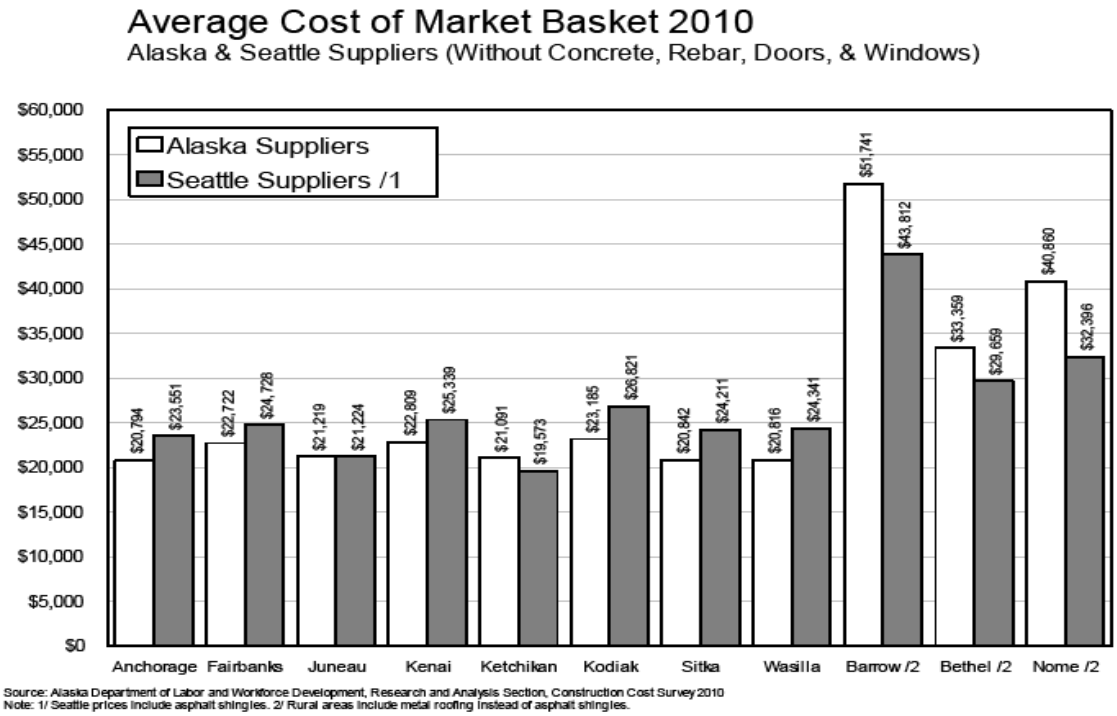
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2010
Note: 1/ Rural areas include metal roofing instead of asphalt shingles.

Graph 4



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2010
Note: 1/ Rural areas include metal roofing instead of asphalt shingles.

Graph 5



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2010
Note: 1/ Seattle prices include asphalt shingles. 2/ Rural areas include metal roofing instead of asphalt shingles.