Construction Cost Survey 2012

Prepared for

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Table of Contents

Construction Cost Survey January 2012

In January 2012, the twentieth 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 2012 to 2011

Alaska Market Baskets

Eight of the 11 participating locations experienced increases in the overall cost of market basket materials. Increases ranged from 1 percent in Barrow to 22 percent in Bethel. Anchorage and Juneau experienced decreases in the overall cost of the market basket materials (5 and 3 percent respectively) and Fairbanks dropped by less than 1 percent.

Seattle Market Basket

Eleven out of 15 individual core items increased in cost this year and Seattle's overall total reached $19,443. This is a 7 percent increase ($1,366) over last year and a 13 percent increase ($2,452) from two years ago. The four most expensive items in Seattle increased this year, raising the total cost by $1,248.

Concrete

In 2012, the price of concrete rose in five areas, fell in two, and stayed the same in one. Percentage increases in concrete ranged from 1 percent (Fairbanks) to 9 percent (Juneau). Prices declined by 4 percent in Kenai and 2 percent in Wasilla.

With a small increase of $22, Fairbanks remains the least expensive location for concrete again this year ($3,220). Kodiak continues to top the list at $6,870 ($270 more than last year), with Sitka and Juneau next in line with $5,580 and $5,430, respectively.

Rebar

In 2012, the price of rebar increased in six urban locations. Price increases ranged from 4 percent in Anchorage to 29 percent in Sitka. Rebar was most expensive in Sitka in 2012, at $1,059.

While Fairbanks and Ketchikan were the only two Alaska locations with declines in rebar this year, they were two of the most expensive locations; $911 and $851, respectively.

Prices for rebar in Wasilla rose18 percent this year (now up to $717), pushing it out of the lowest-cost position. Anchorage had the least expensive price for rebar of all urban areas with a cost of $656; 38 percent less than Sitka.

The price of rebar in Seattle dropped marginally by $3. This year, Sitka, Fairbanks, and Ketchikan had higher costs for rebar than Seattle ($780).

Doors and Windows

Nine Alaska locations had increases in the total cost of doors and windows in 2012. The percentage increases ranged from 1 percent in Juneau and Barrow to 27 percent in Kodiak.

Last year, Kenai and Seattle were the two least expensive locations for doors and windows ($3,036 and $3,235), and experienced declines in each item of that category. In 2012, those two locations had two of the highest increases at 27 and 19 percent, respectively.

With a 7 percent drop in Anchorage and a 1 percent increase in Juneau, Juneau is now the second most expensive urban location for doors and windows, at $4,474. Only Kodiak had a higher market basket price for these items, at $6,725.

Fairbanks saw two consecutive years of significant price drops in doors and windows with declines of $1,045 in 2011 and $510 in 2012. That location now ranks lowest among all locations ($3,170).

Shipping Costs from Seattle

The cost of transporting the building materials from Seattle increased in all areas. The percentage increases ranged from 3 percent in Sitka to 11 percent in Juneau.

In Barrow, shipping costs rose 10 percent, or $3,109. For the third year in a row, Barrow has had the largest nominal change of any surveyed area. The cost of shipping to Barrow has continued to rise steadily since 2003.

The net effect of shipping costs to all locations combined in 2012 was an increase of $8,191 - much higher than the increase of last year ($3,356) but not as high as the spike in 2010 ($9,574).

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 – generally speaking, 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 $21,524 in Anchorage to a high of $53,566 in Barrow.

- The most expensive urban location for the seventh consecutive year was Kodiak, with a total market basket cost of $25,734. Bethel was (by a narrow gap of $786) the least expensive rural location with a cost of $41,158. Bethel's overall market basket shot up 22 percent ($9,079) in 2012.

- Three locations experienced price decreases in 2012 (Anchorage, Juneau, and Fairbanks) and the greatest drop was in Anchorage, at 5 percent. This translated to a drop of $1,019 in the market basket price.

- Kodiak's market basket increased 6 percent in 2012. With Bethel's increase of 22 percent, the disparity between the most expensive urban location and the least expensive rural location ballooned this year, to $15,424 – almost twice that of last year $7,869.

- The cost of truss in Barrow fell by $1,504; this was the greatest dollar value decrease for a single item among all locations. In Barrow, this more than makes up for the 2011 increase in truss; $1,344.

- Anchorage's market basket had been increasing for four consecutive years until 2012. The three main items driving up the cost in Anchorage were truss, copper pipe, and ABS pipe. This year, those were the only three items to drop in price by $1,378, $544, and $316, respectively.

- Juneau experienced price declines in 6 out of 15 items in 2012, for an overall decrease of 3 percent ($643).

- Thirteen out of fifteen market basket items increased in Wasilla resulting in a 13 percent increase in the market basket this year. The core materials total was $583 lower than the most expensive urban location (Kodiak) and was a full $3,627 higher than the least expensive location (Anchorage).

- The cost of shingles was up this year in every location except Kodiak, where the price fell $378. Although Anchorage experienced a 1 percent increase, all other locations reported double-digit percentage increases ranging from 11 percent in Sitka to 16 percent in Ketchikan.

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 ($21,524) produces the index value for that community.

- The Anchorage market basket cost decreased $1,019, or 5 percent in 2012. Since Anchorage had the largest percentage decrease in market basket price, all other areas saw inclines in index values.

- The most significant change occurred in Bethel. With the largest percentage increase among all market baskets (22 percent), Bethel's index value rose from 142 in 2011 to 191 in 2012, broadening the spread from the Anchorage market basket cost.

- In 2011, five locations had index values equal to or lower than Anchorage. Only two urban locations were higher; Kenai (103) and Kodiak (107). In 2012, all locations had index values higher than Anchorage. Urban locations ranged from 101 points in Juneau to 120 points in Kodiak.

- In 2012, the index value spread, (the difference between the highest and lowest index values) among urban locations rose to 19, up from 15 in 2011.

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 seven participating urban communities only.

- The Seattle market basket increased 7 percent to $19,443. For the fourth consecutive year, builders in all urban Alaska locations, except Ketchikan, would save by purchasing the market basket items locally instead of buying in Seattle and having them shipped north.

- The added cost for Ketchikan builders purchasing locally shrunk to $527 in 2012, from $886 in 2011 and $1,518 in 2010. The savings for all other locations purchasing locally ranged from $2,624 (Wasilla) to $6,351 (Fairbanks).

- Wasilla's spike in the core market basket materials affected the amount of local purchase savings. All of Alaska's urban locations, except Wasilla and Ketchikan, experienced an increase in their local/Seattle pricing spread. These five urban communities had increases in savings ranging from $505 in Kenai to $2,753 in Anchorage.

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 ($7,484) produces the index value for that community.

- Shipping costs to Anchorage increased $368, or 5 percent, in 2012. Areas with cost increases of greater than 5 percent had increases in their index values. Areas with cost decreases, or increases of less than 5 percent, experienced declines in their index values.

- While the transportation cost rose in all communities this year, only five communities saw index value increases in 2012 ranging from two points in Fairbanks and Ketchikan to 22 points for Barrow.

- Sitka, Juneau, and Ketchikan had values below 100 in 2012 at 99, 68, and 39, respectively.

- Ketchikan and Barrow had two of the highest percentage increases this year and the resulting impact to total shipping costs were $282 more in Ketchikan and $3,109 more in Barrow.

- Ketchikan is the closest city in proximity to Seattle of the 11 communities surveyed. With reason, shipping costs to Ketchikan are the lowest. This year's shipping costs of $2,883, and corresponding index value of 39, were less than half that of Anchorage's. On the opposite end of the scale, shipping costs to Barrow, the furthest city from Seattle, were $31,303. This figure is more than 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 eight in Washington participated in this year's survey. Alaska participants represent nine unique firms, as some companies have stores in multiple locations. Similarly, Washington participants represent four unique firms. In addition, 15 concrete suppliers and eight 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 2011. America's Labor Market Information System provided 2012 employee counts for Seattle suppliers.

Appendix A: Construction Cost Survey Tables and Charts

Average Price for Construction Materials
Alaska Suppliers
2012

				Urban								Rural *		
Market Basket Items	Quantity	Units	Size	Length	Anchorage	Fairbanks	Juneau	Kenai	Ketchikan	Kodiak	Sitka	Wasilla	Barrow	Bethel	Nome
BCI 60 Series	768	lf	14"		2,146	$2,461	$2,139	$2,907	$2,519	$3,418	$2,678	$2,883	$2,720	$4,353	$4,296
2-4-1 T&G FF Underlay 4' x 8'	62	pcs	1 1/8"		2,280	2,375	2,235	2,483	2,727	2,658	2,827	2,567	7,439	3,276	4,626
T-111 8" Center Groove 4' x 10' Siding	60	pcs	5/8"		2,889	3,227	3,098	3,363	3,000	3,356	3,580	3,369	5,999	4,979	4,858
CDX 4' x 8' #53	106	pcs	5/8"		2,020	2,079	2,081	2,315	2,119	2,263	2,265	2,986	5,456	3,417	4,096
Studs #2 & btr Kiln-dried	184	pcs	2" x 4"	92 5/8"	334	386	401	407	490	494	419	509	1,474	1,036	850
Studs #2 & btr #14 Kiln-dried	263	pcs	2" x 6"	92 5/8"	819	950	995	987	1,233	1,157	972	1,287	3,153	2,176	2,012
4' x 12' Plain Sheetrock #84	95	pcs	1/2"		1,804	1,831	1,671	1,846	1,263	1,711	1,624	1,723	6,174	5,329	3,502
4' x 12' Type X Sheetrock #109	68	pcs	5/8"		1,447	1,489	1,391	1,512	1,034	1,476	1,291	1,428	5,099	3,814	3,057
Fiberglass Bat Insulation (2,560 sq ft)	40	bags	R-38" x 24"	64 sq ft	2,568	2,440	2,348	2,948	1,400	2,949	2,633	2,727	4,550	4,199	4,685
Fiberglass Bat Insulation (2,034 sq ft)	30	bags	R-21" x 15"	68 sq ft	1,503	1,221	1,378	1,499	1,512	1,560	1,583	1,504	2,910	2,102	2,014
NMB Electric Wire	3	boxes		250'	258	270	232	315	300	312	290	279	480	550	302
Single Breaker	75	pcs	15 Amp		132	90	82	123	185	145	86	288	44	179	122
Copper Pipe Type 'M'	150	lf	3/4"		372	308	355	322	671	306	342	323	375	579	804
ABS Pipe	100	lf	3"		188	188	200	228	199	269	256	226	272	396	382
3 Tab Shingles Brown	102	bundles			2,886	3,142	3,028	3,331	4,161	3,660	3,430	3,050	N/A	N/A	N/A
Metal Roofing	3,275	sq ft	3' x 20'		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7,419	4,771	6,286
Total (Without Concrete & Rebar)					**$21,624**	**$22,457**	**$21,692**	**$24,686**	**$22,853**	**$25,734**	**$24,293**	**$25,151**	**$53,666**	**$41,158**	**$41,944**
Concrete	30	yds			3,499	3,220	5,430	3,471	5,400	6,870	5,580	3,356			
#4 Rebar	93	pcs	1/2"	20'	656	911	695	777	851	752	1,059	717			
Total (With Concrete & Rebar)					**$25,679**	**$26,588**	**$27,817**	**$28,934**	**$29,104**	**$33,356**	**$30,932**	**$29,224**			

* Rural areas exclude concrete & rebar

Average Price for Doors and Windows
Alaska Suppliers
2012

				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'	$336	$428	$534	$367	$520	$525	$515	$493	$840	$736	$837
Low E Argon Windows with R > 2.8 Vinyl Casements	3	pcs	2.6' x 3	$763	$547	$770	$708	$716	$750	$653	$638	$960	$1,127	$789
Low E Argon Windows with R > 2.8 Vinyl Casements, 5.7 E-Gress	6	pcs	2.6' x 4	$1,745	$1,277	$1,693	$1,582	$1,554	$1,650	$1,448	$1,460	$2,400	$2,574	$1,650
Low E Argon Windows with R > 2.8 Vinyl Casements, 5.7 E-Gress	2	pcs	6.0' x 4	$1,483	$918	$1,477	$1,488	$1,253	$3,800	$1,195	$993	$1,140	$2,329	$840
Total Cost of Doors & Windows				**$4,327**	**$3,170**	**$4,474**	**$4,173**	**$4,043**	**$6,725**	**$3,811**	**$3,584**	**$5,340**	**$6,766**	**$4,116**

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2012
Weighted average using 2010 Q2 ODB202 number of employees where applicable
Totals may not sum due to rounding
N/A = Not Applicable

Average Price for Construction Materials
Seattle Suppliers
2012

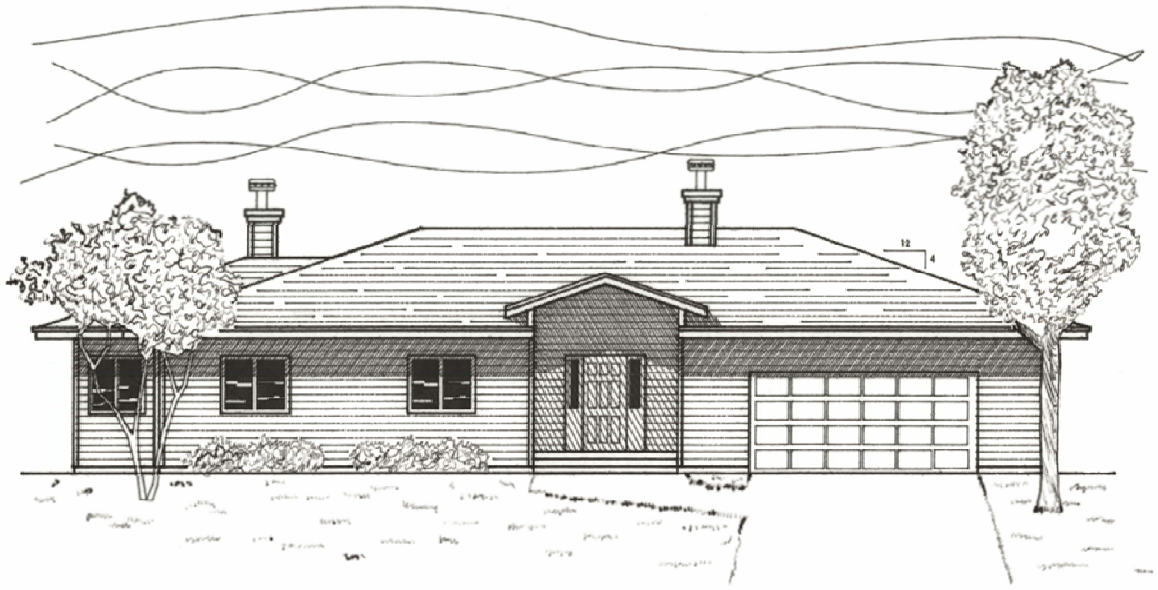
Market Basket Items	Quantity	Units	Size	Length	Seattle Area
BCI60 Series	768	ft	14"		$2,495
2-4-1 T&G FF Underlay 4' x 8'	62	pcs	1 1/8"		2,242
T-111 8" Center Groove 4' x 10' Siding	60	pcs	5/8"		2,064
CDX 4' x 8' #53	106	pcs	5/8"		1,899
Studs #2 & btr Kiln-dried	164	pcs	2" x 4'	92 5/8"	326
Studs #2 & btr #14 Kiln-dried	263	pcs	2" x 6'	92 5/8"	855
4 x 12' Plain Sheetrock #84	95	pcs	1/2"		1,138
4 x 12' Type X Sheetrock #109	68	pcs	5/8"		1,154
3 Tab Shingles Brown	102	bundles			2,286
Fiberglass Bat Insulation (2,560 sq ft)	40	bags	R-38" x 24"	64 sq ft	2,166
Fiberglass Bat Insulation (2,034 sq ft)	30	bags	R 21" x 15"	68 sq ft	1,279
NMB Electric Wire	3	boxes		250'	217
Single Breaker	15	pcs	15 Amp		98
Copper Hoe Type 'M'	150	ft	3/4"		275
ABS Pipe	100	ft	3"		151
Total (Without Rebar)					**$19,443**
#4 Rebar	93	pcs	1/2"	20'	780
Total (With Rebar)					**$20,223**

Transportation Cost of Market Basket
Shipping & Handling (Without Concrete, Rebar, Doors, & Windows)
2012

Destination	Seattle
Ketchikan	$2,883
Juneau	5,078
Sitka	7,426
Anchorage	7,484
Wasilla	8,332
Kenai	9,346
Fairbanks	9,365
Kodiak	11,449
Bethel	13,292
Nome	16,410
Barrow	31,303

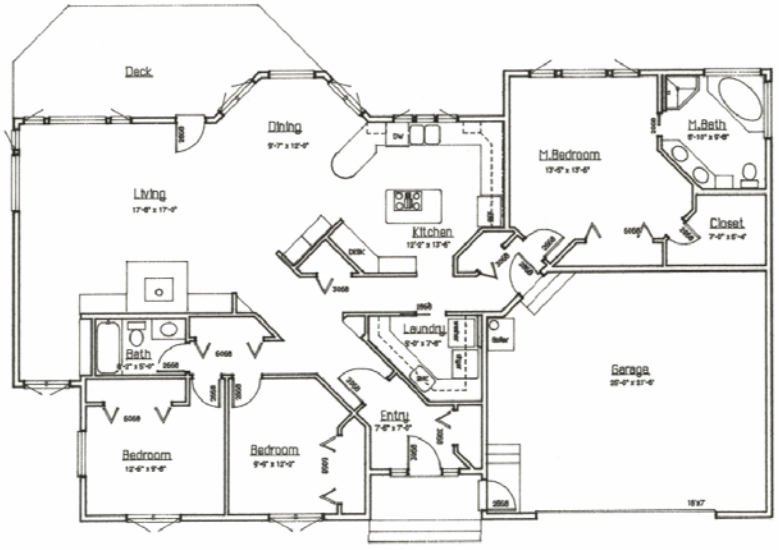
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2012
Weighted average using 2010 Q2 ODB202 number of employees where applicable
Totals may not sum due to rounding
N/A = Not Applicable

Artist Rendering of Model Home



FRONT ELEVATION

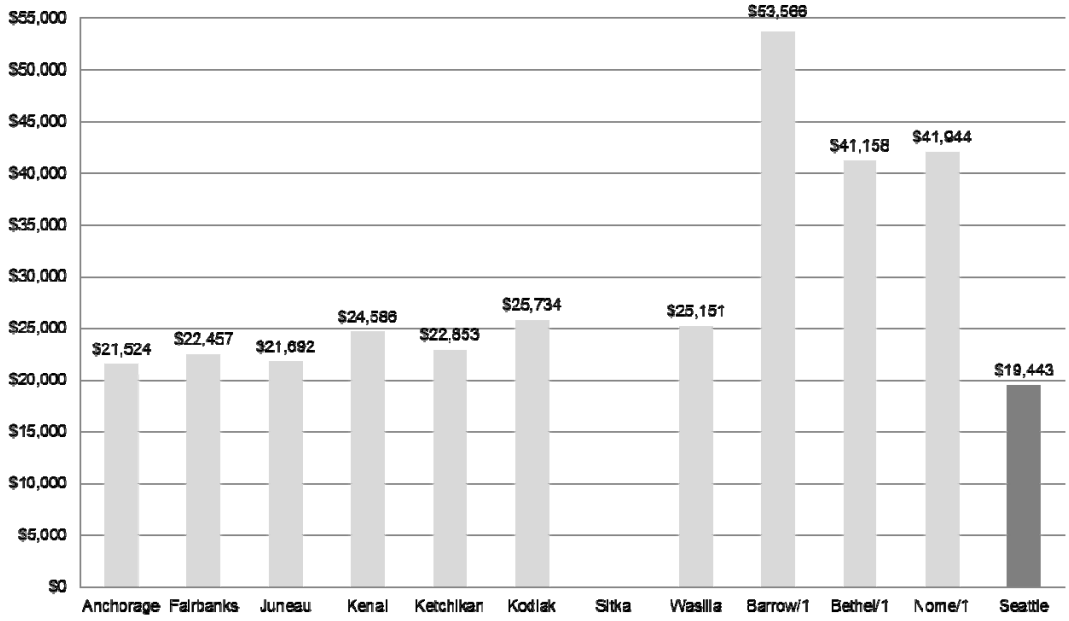
Floor Plan of Model Home



Floor Plan
1923 SQ. FT.

Average Cost of Market Basket 2012

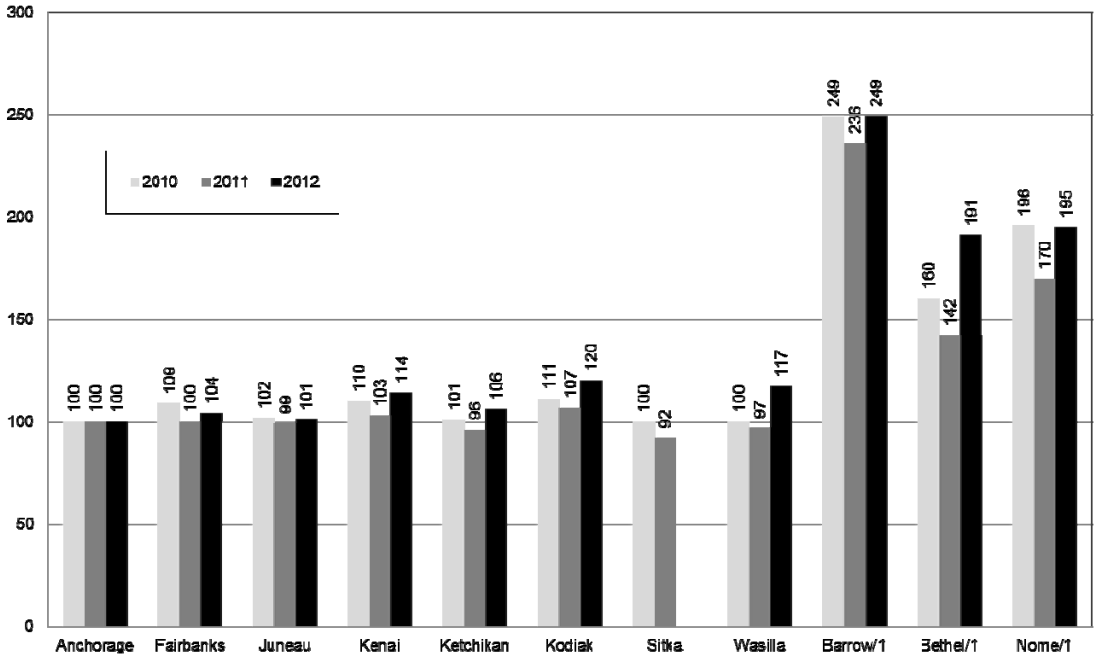
Urban & Rural Residential Construction (Without Concrete, Rebar, Doors, & Windows)
Alaska and Seattle Suppliers



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2012
Note: 1/ Rural areas include metal roofing instead of asphalt shingles.

Alaska Suppliers Comparison Index

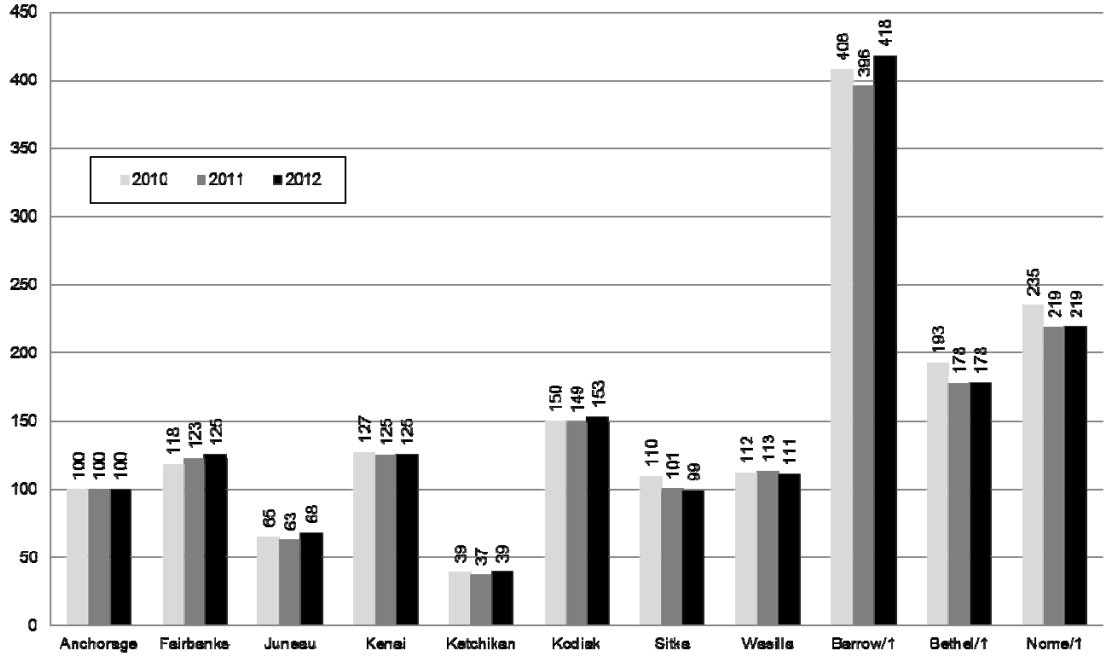
Urban & Rural Residential Construction (Without Concrete, Rebar, Doors, & Windows)
Index by Community with Anchorage as Baseline



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2012
Note: 1/ Rural areas include metal roofing instead of asphalt shingles.

Transportation Index for Market Basket from Seattle

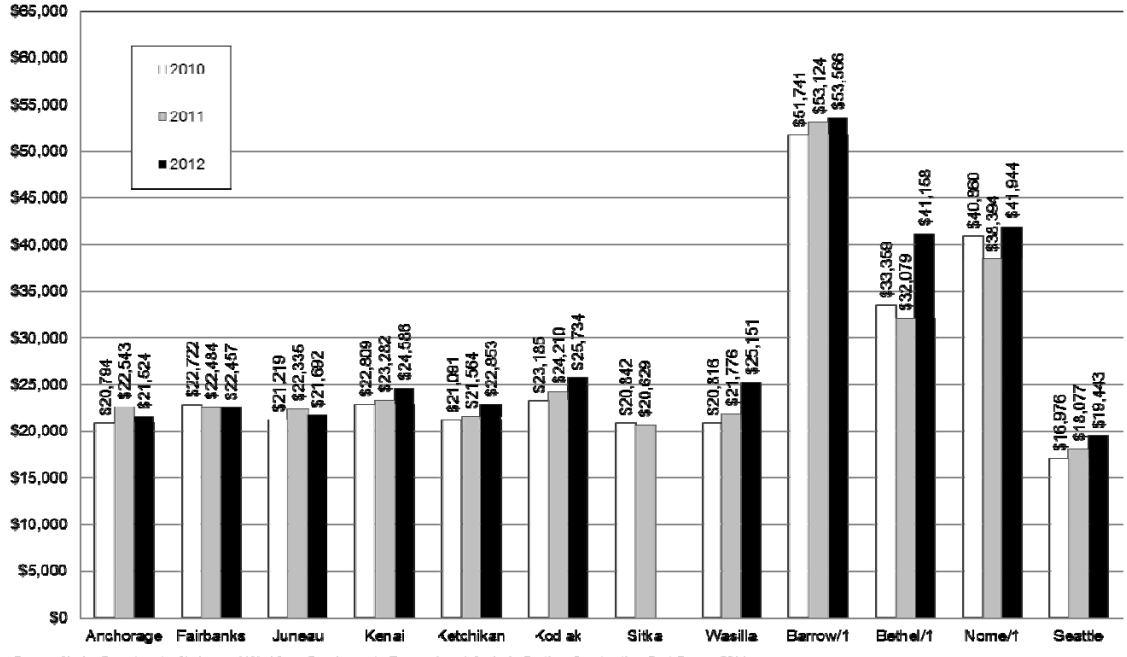
Urban & Rural Residential Construction (Without Concrete, Rebar, Doors, & Windows)
Index by Community with Anchorage as Baseline



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2012
Note: 1/ Rural areas include metal roofing instead of asphalt shingles.

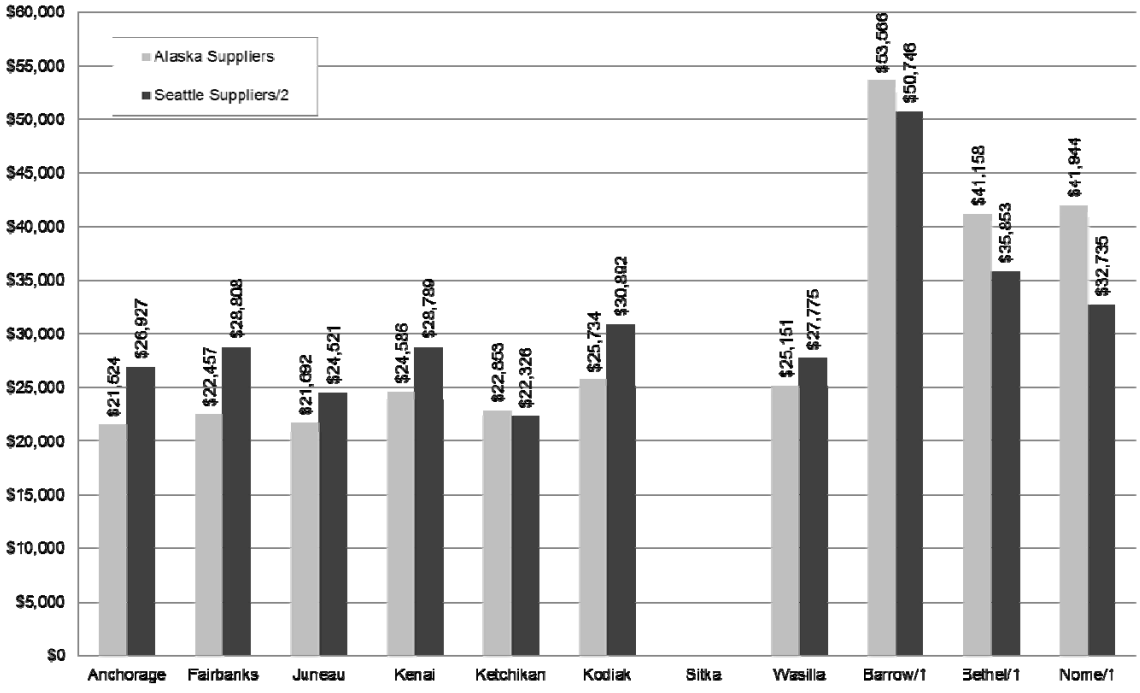
Average Cost of Market Basket 2010-2012

Urban & Rural Residential Construction (Without Concrete, Rebar, Doors, & Windows)
Alaska and Seattle Suppliers



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2011
Note: 1/ Rural areas include metal roofing instead of asphalt shingles.

Average Cost of Market Basket 2012
Alaska & Seattle Suppliers (Without Concrete, Rebar, Doors, & Windows)



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Construction Cost Survey 2012
Note: 1/ Rural areas include metal roofing instead of asphalt shingles. 2/ Seattle prices include asphalt shingles.