Understanding Wall Costs

Today's consumer is faced with a variety of choices when making a decision about what type of system to use for the walls of their home, fence or building. There are many different wall systems on the market with the most common being wood frame, concrete block (CMU), insulated concrete forms (ICF), structurally insulated panels (SIP) and autoclaved aerated concrete (AAC). Built walls typically consist of between four and fifteen components including labor. When comparing the costs of two competing wall systems it is best to first determine the performance criterion that is most important to you. That is, are you interested in, for example, strong walls, great insulation, durability, diy suitability, low embodied energy or quite rooms? Once this has been determined, walls of similar performance should be compared by adding up all of the component costs. Do not make the mistake of comparing systems by comparing the cost of only one component of each system. Avoid comparing the costs of an insulated CMU wall with that of an AAC wall by comparing their respective block costs. Although these blocks may make up the majority of the volume of a given wall they may not make up the majority of the wall cost and frequently do not. Let's look at a few examples:

Example#1

We'll compare the walls costs of a Liteblok™ 38 Grande wall in Austin, Texas with that of ICF having a similar equivalent R value. The Liteblok™ 38 Grande has an equivalent R value of 35 and only requires grout, rebar, and labor to build an unfinished wall. From list pricing, the block is $6.75 per square foot. Labor, grout, and rebar will typically add another $3.25 to wall costs bringing the total installed wall cost to $10.00 (see table for break down of labor and material costs). ICF has a typical installed price of about $12 per square foot[1] (split 1/3 for labor and 2/3 for materials). This includes the forms, concrete, rebar, anchor bolts, concrete pump, bracing and labor. In this example, the installed cost of the Liteblok™ wall is 17% less than ICF.

	Liteblok™ 38 Grande (per sq ft)	ICF (per sq ft)
Materials	$8.25	$8.00
Labor	$1.75	$4.00
Total	$10.00	$12.00

Example #2

Comparison is made between Liteblok™ 69 and CMU for an outdoor block wall. A block wall built with the 5" Liteblok™ 69 will be about $6.22 per square foot (ignoring footing costs) including materials and labor. A similar 6" CMU costs about $9.79 per square foot[2] (also ignoring footing costs which will be about the same for both systems). Even though the CMU block is only about $1.30/ sq ft versus $5.18/ sq ft for Liteblok™ 69, the additional component costs of concrete, rebar, mortar, and skilled labor drive the wall costs higher than that of Liteblok™. In this example, the Liteblok™ wall is 36% cheaper than the CMU wall.

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Example #3

A finished Liteblok™ 38 wall is compared with a finished 2x6 wood frame wall. The Liteblok™ wall was constructed with blocks, grout, rebar and labor. The 2x6 wall was built with sheathing, sheetrock, fiberglass batt, framing, and a vapor barrier. The equivalent R values are similar with Liteblok™ and 2x6 having values of 22 and 19 respectively. Comparing the relative costs, it is evident that the majority of the Liteblok™ wall cost is for materials while the majority of 2x6 wall cost is for labor. Typical installed Liteblok™ wall costs are $8/ sq ft while 2x6 walls are 50% higher at $12/ sq ft. The cost difference is even wider for walls finished on the interior with paint and stucco on the exterior (see table). Stucco and paint can be applied directly to Liteblok™ but metal lathe and thick stucco is usually required to finish a wood frame home adding more to the finish cost.

		Liteblok™ 38 (per sq ft)	2x6 Wood Frame (per sq ft)
Erect Wall	Materials	$7.00	$4.00
	Labor	$1.00	$8.00
	Sub-Total	$8.00	$12.00
Finish Wall	Materials	$2.00	$4.00
	Labor	$2.00	$3.00
	Sub-Total	$4.00	$7.00
	Total	$12.00	$19.00

The examples presented above are for construction costs. Consumers should also be concerned about the maintenance costs and savings potential of the wall system they choose. Will you save money on electricity bills and smaller A/C equipment? Will you benefit from tax credits and lower insurance premiums? Are the wall components resistant to attack or infestation by termites or vermin? Will moisture become trapped within the layers of the wall leading to mold, mildew or rot? Will it burn? And when it does burn will it generate toxic fumes? Do the wall components contain toxic or hazardous chemicals which may render your structure either unhealthy or uninhabitable? Is the structure resistant to freeze-thaw degradation, strong winds, seismic activity or foundation movement?

Careful consideration of both initial and long term costs will reveal that Liteblok™ offers the best combination of performance and affordability of any system on the market today.

The costs presented are only an estimate and are for illustrative purposes only. Costs will vary depending on labor market, project size, supplier, application, freight rates, taxes, contractor rates, and building codes. For exact prices on products supplied by Cresco Concrete Products, please request a pricelist or quote. Any valid "apples to apples" comparison of different wall systems must include the costs of all components, including labor, of similarly performing wall systems.

[1] http://www.greenbuildingtalk.com/Forums/tabid/53/forumid/4/postid/25542/view/topic/Default.aspx
[2] http://masonryanswers.com/tech/estimating/cost/cmucost/cmucost/cmucost_8.html

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