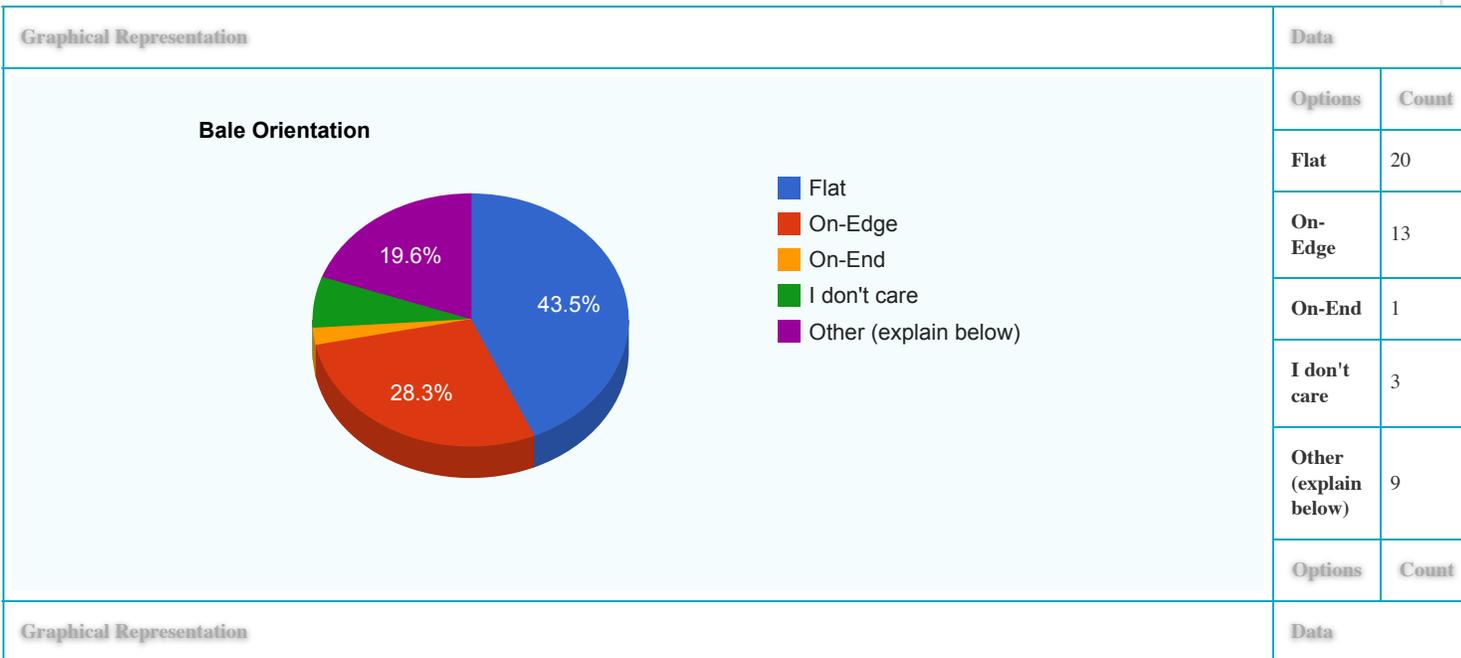


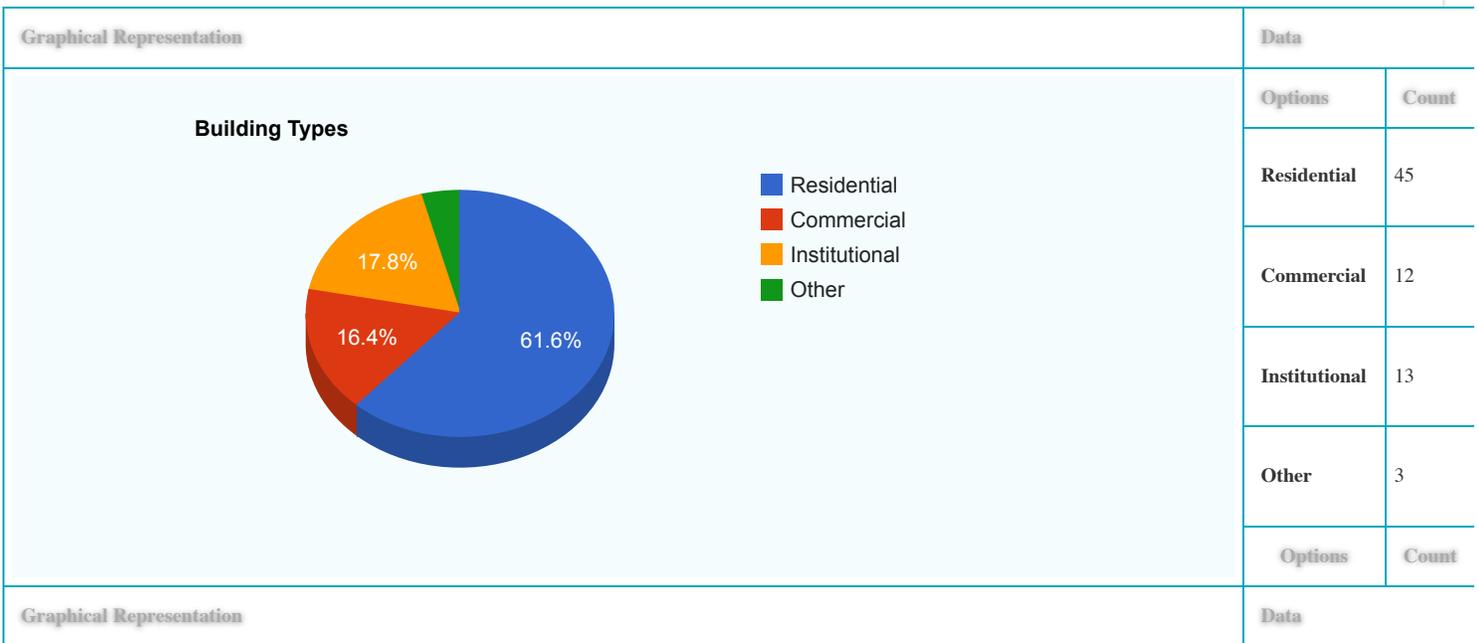
## Bale Orientation



### Other (explain below) →

Entry	Name	Email
We are currently building with bales on edge. The jury is still out...	<a href="#">Anonymous</a>	anonymous
I use flat and on edge, depending on the project. I do care, and I see advantages to each approach. I have never used 'on-end' orientation.	<a href="#">Anonymous</a>	anonymous
I have oriented bales flat or on-edge, depending on the project	<a href="#">Anonymous</a>	anonymous
it totally depends...	<a href="#">Anonymous</a>	anonymous
I explain the pros and cons of each before we proceed with the design	<a href="#">Anonymous</a>	anonymous
The building design determines the orientation. I've built Flat, On-Edge, On-End. As a builder, I prefer working Flat	<a href="#">Frank Tettemer</a>	<a href="mailto:frank@livingsol.com">frank@livingsol.com</a>
Varies across projects - see below	<a href="#">Anonymous</a>	anonymous
orientation depends on system of building etc.	<a href="#">Anonymous</a>	anonymous
we place them on edge then cut the strings	<a href="#">Anonymous</a>	anonymous
All of the above!	<a href="#">Anonymous</a>	anonymous
Entry	Name	Email

## Building Types



**Other** →

Entry	Name	Email
Sheds	<a href="#">Anonymous</a>	anonymous
walls for training purpose	<a href="#">Anonymous</a>	anonymous
play structures	<a href="#">Anonymous</a>	anonymous
Entry	Name	Email

## Occupation

Graphical Representation	Data	
<p><b>Occupation</b></p> <ul style="list-style-type: none"> <li><span style="color: blue;">■</span> Contractor</li> <li><span style="color: orange;">■</span> Architect</li> <li><span style="color: yellow;">■</span> Engineer</li> <li><span style="color: green;">■</span> Subcontractor</li> <li><span style="color: purple;">■</span> Skilled Laborer</li> <li><span style="color: cyan;">■</span> Owner/Builder</li> <li><span style="color: pink;">■</span> Other</li> </ul>	Options	Count
	Contractor	14
	Subcontractor	9
	Skilled Laborer	6
	Owner/Builder	20
	Architect	11
	Engineer	3
	Other	12
	Options	Count
Graphical Representation	Data	

## Other

Entry	Name	Email
Non profit housing director	<a href="#">Anonymous</a>	anonymous
educator, workshop organizer and instructor	<a href="#">Anonymous</a>	anonymous
hands on teacher of natural building	<a href="#">Anonymous</a>	anonymous
Designer. This designation requires a Building Code Identification Number in Ontario. It is an occupation similar in scope to to an architect.	<a href="#">Frank Tetterer</a>	<a href="mailto:frank@livingsol.com">frank@livingsol.com</a>
Consultant, Teacher, Writer	<a href="#">Anonymous</a>	anonymous
Design/Builder	<a href="#">Anonymous</a>	anonymous
PhD researcher and University technician	<a href="#">Anonymous</a>	anonymous
Designer/builder	<a href="#">Anonymous</a>	anonymous
strawbale trainer	<a href="#">Anonymous</a>	anonymous
SB building teacher	<a href="#">Anonymous</a>	anonymous
educator	<a href="#">Anonymous</a>	anonymous
designer	<a href="#">Anonymous</a>	anonymous
Entry	Name	Email

 **Explanation**

Feedback	Name	Email	Phone	Date
<p><b>7 of the 8 Community Rebuilds homes have been built orienting bales to be flat. Our current build is bales on edge. We are testing speed, cost, and quality with this build. Resource Engineering Group, Inc in Crested Butte were the engineers on the project and probably have a lot to say about it. I am personally not convinced that bales on edge are the best. The current foreman in Moab, Doug Nichols, and the contractor, Eric Plourde of Eco Logic Design Build, would be great resources. I have asked them to answer this survey. Dusty Szymanski of Straw and Timber Craftsman (and the Director of the Colorado Straw Bale Assoc.) would of course also have a lot to say...but you'd better get a hold of him quickly since his wife Jessica is about to have her baby!</b></p> <p><b>Emily</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>March 31, 2014 pm31 1:33 pm</p>
<p><b>Flat and on-edge each have pluses, for different projects. On-edge has a smaller footprint, and greater height, so fewer bales are needed, overall. The insulation value is said to be similar in both orientations. This seems more likely for two-string than for three-string. However,</b></p>				

<p><b>I think that the bales compact together a bit better on-edge, especially with a little pre-compression/wall compaction via straps or threaded rods. This might provide a small thermal performance advantage for the on-edge wall.</b></p> <p><b>Walls are a bit more stable during construction when the bales are laid flat. Some people prefer the thicker walls of flat bale orientation. Sculpting bales around windows and doors is easier with flat bales. Curved walls are easier. Strings are protected, which may be a plus. Plastering is easier. For three-string bales, the insulation value is probably greater for flat orientation.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>March 31, 2014 pm31 1:41 pm</p>
<p><b>I've been designing draw bale building for 30 years now. I started placing bales on end when I decided to infill them between studs in a standard stick frame structure. It has made SB infills much easier for many of my owner-builder clients. And it has made the process of getting building permits much easier also since the bales have no structural role at all.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>March 31, 2014 pm31 1:45 pm</p>
<p><b>I prefer orienting bales on-edge, but each way has its advantages and disadvantages. The best choice depends on the situation.</b></p> <p><b>ADVANTAGES of EACH: On-Edge: produces walls that are "thick enough"; uses fewer bales, better R-value per inch</b></p>				

<p><b>(assuming the predominant straw orientation is vertical when the bale is positioned on-edge). Laid Flat: can notch into the face of the wall; better bond between plaster and the straw on the face of wall; less settlement of stacked bales; bales are more stable when stacking. - Martin Hammer</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>March 31, 2014 pm31 1:49 pm</p>
<p><b>Generally I choose bales on flat as they are inherently more stable piled up that way - much the same as any brick laid on the flat is more stable than bricks on edge. I will use bales on edge sometimes if I have included a rain screen on the the exterior of some walls and wish to achieve the same wall thickness as bales on the flat, but can not interlock at nay corners between bales on edge and on flat so need to design accordingly</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>March 31, 2014 pm31 2:39 pm</p>
<p><b>Our contractor prefers to lay the bale on flat as it is more stable during the build. As a post and beam structure it is easier to cut posts, electrical conduits and other services into the bales.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>March 31, 2014 pm31 4:21 pm</p>
<p><b>Flat makes any notching easier and I think the plaster penetrates the straw better and has better adhesion. I'm OK with thicker walls.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>March 31, 2014 pm31 4:40 pm</p>

<p><b>Easier to work with and strings out of the way</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>March 31, 2014 pm31 4:44 pm</p>
<p><b>most often I use flat bales, as they create the most naturally stable wall, are easiest to shape around windows, and easiest to plaster. However, when I know I will have external pinning (for example, if I am putting siding on a strawbale wall) and it would be beneficial to have the extra 4" of space into the room, then I opt for bales on edge.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>March 31, 2014 pm31 4:59 pm</p>
<p><b>Bales are more stable</b>  <b>Bales can be notched for posts without breaking strings</b>  <b>Bale is more textured and accepts/keys plaster better</b>  <b>Strings can be cut without bale disgorging.</b>  <b>Cutting strings when bales are in place fills out and tightens the wall.</b>  <b>Aesthetics, for larger buildings the deep wall may be more suitable.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>March 31, 2014 pm31 5:28 pm</p>
<p><b>I like that bales on edge use less real estate and yet still have exceptional insulation. I think that they settle less in this orientation, and the tubules of straw are less likely to draw moisture into the walls (not sure if this is true or not). When a lot of notching is necessary, like when the posts are in the wall, I think flat is better.</b></p>				

<p><b>We usually re-tie bales and stuff, which is fine for on-edge. I think plaster sticks a little easier on flat orientation. curving bales is easier flat, unless bales are broken and re-tied into smaller units. It's nice to design for bale increments, and depending on what window heights we want around the house, one or the other may work out better.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>March 31, 2014 pm31 5:48 pm</p>
<p><b>Mostly opinion but it seems that stucco is easier to key into bales laid flat.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>March 31, 2014 pm31 6:17 pm</p>
<p><b>There is often some very rainy weather here during construction season. Best to get a roof up, and work on bales while under it. 2x4 studs @ 32" o.c. works good with bales on the Flat. 2x4 studs @ 18" o.c. works good with bales on-end. I've also built between posts using bales on edge. But my favorite is bales laid flat. I believe that bales laid flat creates the greatest stacking strength, as well as offering the straw ends to create the strongest bond with the first coat of plaster. The thicker wall section helps resist thermal conductivity. Frank Tettermer, Living Sol ~ Building &amp; Design, Killaloe, Ontario, frank@livingsol.com</b></p>	<p><a href="#">Frank Tettermer</a></p>	<p><a href="mailto:frank@livingsol.com">frank@livingsol.com</a></p>		<p>March 31, 2014 pm31 7:07 pm</p>
<p><b>Bales are more stable during stacking and</b></p>				

<p><b>pre-plaster prep work when stacked on the flat side. Sides of the bales hold welded wire to the bale tighter and better than the on edge (cut) side does.</b></p> <p><b>Trimming all sides of the bale before stacking also gives stability to the bales as they are stacked as they do not have holes or uneven places on any of the sides, the bales fit together tightly end-to-end and rest bottoms to tops more firmly. The trimming can be done all at once days or months prior to the bale raising or can be done by one or two people on site during the bale stacking. Trimming reduces the time and materials of stuffing loose straw or plaster to fill holes or uneven places, and is less time-consuming than stuffing and filling..</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>March 31, 2014 pm31 10:34 pm</p>
<p><b>We usuallay use the bales to fill post-and-beam structures in order to have excellent insulation (and U value). Also we use to put hand-made adobe brick layer (15 cm) at the inner side of the wall in order to create reinforcing structure and good surface for installation wires and pipes. The adobe also helps to convince the end-users the usefulness of strawbale.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 1, 2014 am30 2:26 am</p>
<p><b>I prefer the flat orientation for three reasons, 1. Length to slenderness ratio - taller more stable walls are possible, 2.</b></p>				

<p><b>strand orientation, more likely to get connectivity through the wall means stronger plaster bond with less chance of larger areas of sheet de-lamination if a bale tie fails. 3. Insulative property with width.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 1, 2014 am30 5:39 am</p>
<p><b>We put bales on end around all window/door openings to facilitate shaping without losing integrity. We use bales on flat wherever consistent integration into framing or high levels of notching are required. We use bales on edge wherever the bale plane is unencumbered by framing and we desire a thinner wall. We allow orientation to follow the design condition, primarily in regards to structural system: timber frame wrap, vs in-fill stud wall, vs hybrid framing. Plastering is easier on-flat, but a prime coat of clay slip makes on-edge plastering totally fine. Jacob Racusin, New Frameworks Natural Building, Vermont - jacob@newframeworks.com</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 1, 2014 am30 7:02 am</p>
<p><b>Would probably have preferred them on edge if it didn't mean cutting almost every string for post-and-beam notching. Didn't need full width for insulation in our climate (Sacramento Valley, CA), so used smaller, 2-string bales flat.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 1, 2014 am30 7:58 am</p>
<p><b>On edge may give more protection from</b></p>				

<p>wind driven rain penetration however, the bonding of lime plaster to bales On-Edge is not easy to establish in my opinion. I plan to conduct further more categorical research in the future concerning the topic of wind driven rain and moisture penetration into the external straw render interface.</p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 1, 2014 am30 10:17 am</p>
<p>We have typically been using bales on edge for a few key reasons:</p> <ol style="list-style-type: none"> <li>1) Use less bales</li> <li>2) Take up less floor space</li> <li>3) Easier to cut to varying heights</li> <li>4) With 1" of plaster on each side, works out to 16" wall, which suits sheet building materials like plywood, used for top plates, window boxes, etc</li> <li>5) Require less trimming</li> </ol>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 1, 2014 am30 10:26 am</p>
<p>Easy</p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 1, 2014 am30 11:00 am</p>
<p>Flat Bales give higher R Value. With flat bales you can easily notch bales around columns-This typically allows for a framing system that uses less wood.</p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 1, 2014 am30 11:02 am</p>
<p>flat stack provides the best key for plasters to hang on - a bales edge is it's own lath. that being said the beauty of bales is that they can be stack in all ways and once</p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 1, 2014 pm30 5:00 pm</p>

<p><b>strings are cut even coerced into curves and blocky puzzle pieces.</b></p>				
<p><b>Arkin Tilt Architects primarily uses a system of bales placed on-edge, infilled between vertical 14" i-joist placed up to 10' apart, but typically at every window and door jamb. This system requires no notching of bales, and easy stuffing of loose straw for a tight envelope between the flanges. The r-value of bales on-edge equals that of bales laid flat, in 35% less wall thickness.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 1, 2014 pm30 5:17 pm</p>
<p><b>Ties in well with timber frame. Reduced width for same U-value. Fewer bales. Developing hybrid insulated stud frame and bale on edge system.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 2, 2014 am30 1:40 am</p>
<p><b>As the insulation values are 'the same' the space, installation and cost savings are our main drivers. Using the 'buck and beam' system, no notching is required. Changing the height of the wall is very easy as bales can be cut in half or even cut to fit gable ends and raking walls if needed.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 2, 2014 am30 2:08 am</p>
<p><b>Loadbearing is done mainly flat. Lot of infill is on edge. Some infill is flat because it gives the best surface for plastering. Some prefab can be on-end.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 2, 2014 am30 2:27 am</p>

<p><b>Preferred vertical orientation of the straw for strength. This helps with pre-compression. Less foot print square footage. Less bales needed. Less material needed to support of cap the bale wall. Option of retying strings in the wall if needed.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 2, 2014 am30 8:52 am</p>
<p><b>I am open to flat and on edge. Both have merits. On edge makes for easier plaster application of the first coat. Flat makes for better sills and radius plaster details. On edge often leads to more complex framing systems. Flat leads to more notching. At the end of the day it is still a rectangle.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 2, 2014 pm30 4:10 pm</p>
<p><b>I like flat bales for Loadbearing construction.</b></p> <p><b>If I build with a structure, Both on-end and on-edge are fine, if I have a machine to spray the first layer of plaster on. Working clay into an on-edge, compressed bale by hand is terrible!</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 3, 2014 am30 10:57 am</p>
<p><b>Meets eventual California earthquake codes WRT SB construction. Wide footprints adds to quake resistance integrity. Unless bales on edge are caged in metal mesh, the chances of integrity failure rise in cases of fire.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 3, 2014 pm30 1:16 pm</p>

<p><b>It seems like on-edge offers similar R value as flat despite being narrower due to straw orientation. So stacking on edge allows numerous advantages - less foundation support is needed and fewer bales are required (both saving money), and more interior space is available in same exterior footprint. Also, we do wraps so rarely run into problems of strings in the way for notching; stacking on edge however allows us to trim down the top bale heights as needed to perfectly fill a vertical space. On edge also provides a more uniform stacked wall surface - which we find easier to trim &amp; plaster.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 4, 2014 am30 6:41 am</p>
<p><b>They take less space on edge</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 4, 2014 am30 7:27 am</p>
<p><b>Not started building yet, but am planning to slot my bales inbetween framework verticals. This route gives a great wall thickness whilst minimising the more expensive wood framing. Considered on end, though this increases the quantity of framework considerably. I need to protect the west wall thoroughly due to the windy position, else there would be no framework and the walls would be formed solely from bales.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 5, 2014 pm30 1:27 pm</p>
<p><b>Less roof and foundation, easier to plaster</b></p>				

<p><b>to, easier to modify at top of wall, fewer bales to stack</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 5, 2014 pm30 3:44 pm</p>
<p><b>In fact, I do care, but it depends on the design. For bale-wrap applications such as interior frame with bale wrap, on-edge is forgiving because you can locate the top of the wall a few inches below the theoretical top of bale stack and rip the top bale for a tight custom fit. Designing a height for unknown bales laid flat is trickier. The ability to rip the bales also allows greater freedom for design not to be dictated by the bale module, without making the bale installation unduly fussy. Bales flat works better for designs with structural members in the walls, because it is possible to notch around them. Flat bales also trim nicely to a smoother surface with a weed-whacker.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 5, 2014 pm30 3:54 pm</p>
<p><b>Orienting bales flat puts the strings inside thus allowing for easier bale trimming.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 7, 2014 am30 9:19 am</p>
<p><b>We built and are living in, a straw bale home in NW Arkansas and oriented our bales flat, number one based on our readings at the time (6 years ago) and secondly because we planned on using earth plaster and the plaster integrates better with the ends of the straw with the flat orientation.</b></p>				

<p><b>Everything we read at the time seemed to lean toward flat orientation as being a better "R" value for insulation as well.</b></p> <p><b>I have not had any experience with setting bales on edge, only basing our opinion on what we had read. But we are very happy with our design and it has been warm in winter and cool in summer.</b></p> <p><b>Please feel free to call , contact us on facebook, or e-mail me if needed.</b></p> <p><b>yours,</b></p> <p><b>Jeannie Sayers</b></p> <p><b>herbladyherbhome@yahoo.com</b></p> <p><b>facebook= "Herbhome Tales Two"</b></p> <p><b>870-416-3688 after dark CST time please :)</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 11, 2014 am30 9:30 am</p>
<p><b>It worked best for getting a really good cut on the wall ready for plaster and it was the way we learned</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 13, 2014 pm30 10:10 pm</p>
<p><b>The width was already ample with my 3 string bales that it seemed excessive to lay them flat. I also use bale-cob which increases strength and increases compression. With 3 inches of earth plaster on either side, on edge seemed affordable, insulative and structural.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>April 26, 2014 am30 11:57 am</p>
<p><b>Love the versatility of bales! For example, on edge allows stud wall for mechanicals</b></p>				

<p>and keeping thickness same as an adjacent on flat bale walls, easier to plaster flat bales though! It really depends on the project, sometimes on edge allows for a wall just 'skinny' enough to fit in urban design requirements/design issues, on end for between existing 2x4 wall 16oc...bales, love 'em!</p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>May 3, 2014 am31 8:20 am</p>
<p>After many years of stacking bales in both orientations I have found using bales on edge has more advantages for me. First and foremost I like that it saves floor space. A rough run down of savings follows: Using an example of a 30 foot by 50 foot house dimension you gain 50 square feet of interior floor space by placing 2 string bales on edge (using 18" w x 14" h x ~36" L bales). Using a low to mid range cost of 150 dollars per square foot to build said home we see a 7500 dollar savings. Of course, you must actually reduce the size of the home footprint to account for the extra space the bales on edge give us to realize the savings. My next favorite advantage is ease of installation. The installation issue has more to do with using bale width posts than bale orientation. Notching bales laid on edge around posts is difficult because the strings end up facing out from the wall this requires a no notching framing system around posts and logically leads to the bale width post. I figure when stacking bales in this way it can be done in 1/3 the time of a</p>				

post notching system. Also, because the bales are squeezed between these bale width posts I end up with a much tighter wall. Another major perk of this no notching system is safety. The chainsaw is the tool of choice for most builders to notch bales. These tools are not only dangerous and expensive to operate it makes bale construction less accessible to people with out these specialized tools. Furthermore, the chainsaw is not designed to cut through a dry, dusty, often pebble filled straw bale and the process is hard the equipment. Third on list is the fact that when the wall is thinner your widow wells require less time and plaster to finish -- everyone knows that these openings take many hours to prep and plaster. If you are doing tile or wood sills you also save time and material in this regard. In no particular order here are some more points of bale on edge construction. We use less concrete in our footings under the bales. If you like to external pin you can use the exposed strings to weave your pins through. Thinner wall makes windows and door opening less "cave like" and lets in a bit more light. We use less bales to achieve the same wall height. I like that you can stuff straw or light clay straw into gaps where bales meet each other after the entire wall is stacked. When bales are laid flat you must do the stuffing between bales as you go and often novice stacking excitement over runs the need to get these

[Anonymous](#)

anonymous

May 4, 2014 pm31 1:55 pm

<p><b>gaps filled. Any other factors in the stacking process that are cited as a pro or con in the orientation debate I have found an easy "on edge" work around for or find the advantages of edge stacking out weigh the minor issue. Thanks to the TLS for the forum to talk about these topics in the bale world.</b></p> <p><b>Doug Nichols</b>  <b>Moab Utah</b>  <b>Build Instructor Community Rebuilds</b>          (www.communityrebuilds.org)  <b>Building with bales since 1994</b></p>				
<p><b>This way they're still better compressable and the walls will be flatter and easier to plaster</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>May 6, 2014 am31 5:56 am</p>
<p><b>Makes for warmer house</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>May 22, 2014 pm31 7:04 pm</p>
<p><b>Stemwall was sized for 2-string Bales. Switch to 3- string bales required on edge rather than flat. Byproduct was much flatter wall.</b></p>	<p><a href="#">Anonymous</a></p>	<p>anonymous</p>		<p>May 22, 2014 pm31 8:14 pm</p>
<p><b>We prefer to use bales on edge for all of the obvious reasons. Having the bales on edge translates into narrower bearing requirements at the foundation level and at the top of wall.</b></p>				

We exclusively used a plaster pump on our projects, which meant that the plaster was pounded into the bales. Their orientation did not matter as much.

We do consider the possible effects of using bales on-edge during the engineering phase on our projects because not enough research has taken place quantifying required plaster-to-bale adhesion levels.

Therefore, we are a little more conservative in our design approach on these projects.

On a side note, bale walls can be structural or non-structural, meaning that each wall will have a different loading combination.

We believe in using bale walls as structural elements and if mesh is required to achieve a required capacity it can assist in the process of adhesion regardless of bale orientation. But the type of mesh and plaster application is critical in achieving the desired results.

**Jeff Ruppert**

[Jeffrey Ruppert](#)

[jeff.ruppert@gmail.com](mailto:jeff.ruppert@gmail.com)

June 26, 2014 pm30 2:52 pm

Feedback	Name	Email	Phone	Date
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