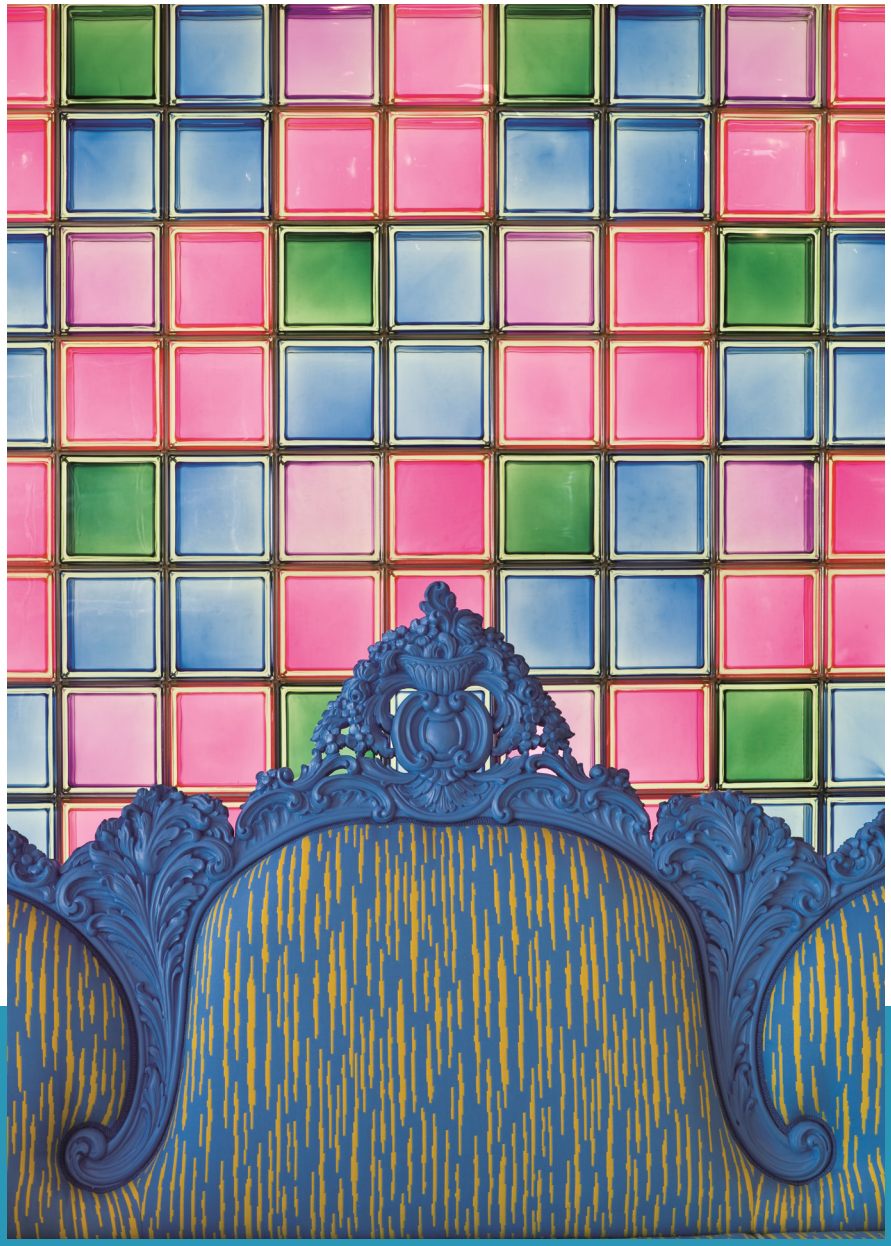
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The Ultimate Glass Block Window Guide:

A Clear Way to Transform Your Home



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In the Basement



How to Fix the Top 5 Basement Window Problems

"My basement windows are nasty!" Ellen said to me on a recent appointment. The reality is when people talk about their basement windows the adjectives they use are not flattering (they're drafty, ugly, bug-infested, rotten and unsafe are just a few examples). Whether you're in the middle of a basement remodeling project or just want to make your lower level space more secure, energy efficient or better looking—fixing old, deteriorating basement windows can be a good investment.

Here are the practical tips I shared with Ellen to fix the biggest problems associated with basement windows!

1 Problem: Basement windows are easy to break into

In most homes existing basement windows are the cheapest and flimsiest windows. Often they are single pane glass windows surrounded by a wood (which is deteriorating) or metal (which is rusting) frame. Breaking in through these windows for vandals is not a tough job. A secure solution to this problem is to install glass block basement windows. These units are mortared to the concrete block or poured foundation making them a high security alternative. For the highest level of protection the latest advancement is a product called a Protect All glass block window. This window uses vinyl spacers to join the blocks together making a structure which is much harder to separate than even a mortar joint.

2 Problem: Energy Loss

The energy efficiency rating of existing single pane glass blocks windows is a microscopic R value of .1. With this being said the biggest energy efficiency problem with metal or wood framed basement windows is often not the thin glass – but is rotten or rusted frames surrounding the pane. A strong product choice to eliminate this problem are vinyl hopper windows or a sliding glass window. The hopper style window works well if you have a small opening and still want to maximize air flow. The sliding window tends to be preferred if you want the opening to be smaller for security purposes.

3 Problem: Existing windows are painted shut or inoperable

If you want your basement to be safe for your family to enjoy and kids to play in limiting the problems associated with hazards like carbon monoxide is essential. To lessen the risk of carbon monoxide created from hot water heaters or furnaces maximizing fresh air in the lower level is important. The challenge is many existing wood framed windows have been painted shut and some metal frame windows have hinges which are so rusted the concern is if you open them you won't be able to shut them again. Two popular solutions to this challenge are to use vinyl replacement windows or a glass block window with an air vent. The vinyl windows operate by either folding down for air (a hopper window) or having a sash which moves side to side (a sliding window). The glass block window with an air vent has a smaller opening than the vinyl window – making it a good solution to allow air flow and to also prevent against break ins.

4 Problem: Getting out in case of fire

Most basement windows are too small for an adult to get out during a fire (as a matter of fact when I was younger my Dad used to hoist me through the basement windows when we got locked out because he would have gotten stuck in the opening!). The best way (although it's not an inexpensive proposition) to create a large enough opening to escape during a fire is to install an egress window. This type of window is required by code if you have a bedroom in the basement. Egress windows themselves are not that expensive – the large cost of this project comes in cutting the foundation and installing a window well on the outside to accommodate the larger egress window. Options in egress (or fire escape windows as some call them) windows can include obscure glass, clear glass or even designs which include a casement acrylic block windows.

5 Problem: Nasty bugs and creepy creatures

If you have members of your household who are afraid of spiders and just can't stand bugs you're not alone. Spiders, pillbugs and snowbugs are common creates you'll find lurking besides basement windows. Solving challenge involves improving air circulation on the inside and reducing moisture on the outside. Strategies to improve inside air flow include having a vinyl windows, glass block windows with an air vents or the larger sized egress windows. In addition to these three options a glass block window can be equipped with a "power vent." This power vent has two exhaust fans which can dramatically increase circulation. To reduce moisture on the outside clean up aging vegetation, grass clippings and planting beds which have been over mulched. In addition consider adding a basement window well with gravel and a drain to move water away from the window.

So which basement window problem is the worst one in your world? No matter what, a glass block window can be a great solution.







In the Bath

How to Install a Glass Block Shower Window



When Jim called me he knew exactly what he wanted – which was a high privacy glass block window to replace a badly worn and chipped wood framed window in his shower. The product selection decision was not tough for Jim – the concern he had though was how to properly install this glass block shower window to have an installation which would last. Jim asked me 4 questions which are typical for people doing this type of project:

1. What do I need to remove from the existing opening (the window sashes, the frame or everything)?
2. How do I prepare the sides of the opening and secure the glass block window?
3. How do I trim the inside of the window?
4. How do I finish the outside?

The following directions made it easier for Jim (and can make it easier for anyone) to have a successful glass block shower window installation.

1 What do I need to remove from the existing opening (the window sashes, the frame or everything)?

My input for Jim is you should remove everything which is rotten, deteriorated or rusted. If the existing sashes or frames and not rotten or rusted at a minimum the sashes will need to be removed.

In the case of a shower window you also need to consider how the inside wall surrounds will be finished. In Jim's case he is building a new tile shower so the interior wood trim around the old window had to be removed so the new tile can be finished back to the glass block window. (see the picture in question 4 to see how this is done).

2 How do I prepare the sides of the opening and secure the glass block window?

Since Jim is building a tile shower I recommended to use cement board (or a waterproof extruded polystyrene wall board) to line the opening so the glass blocks can be mortared or grouted inside the space. Jim was using grout free shower wall panels I could also have recommended the window be secured into the rough wood opening with a spray foam insulation and then return the shower panels back to the glass blocks.

3 How do I trim the inside of the window?

With this tile installation the best approach is to use bullnose tiles to go from the shower wall surface back to the block window. Where the tile meets the glass blocks a bead of clear glass block silicone should be used.

4 How do I finish the outside?

Since this home's exterior is constructed with wood framing and vinyl siding I recommended to bend aluminum coil stock and "cap" the opening on the exterior to meet the glass block window. Once again a bead of silicone is used where the coil stock meets the blocks (note – if the outside was masonry construction I would have advised Jim to add a more joint around the window to secure it to the brickwork).

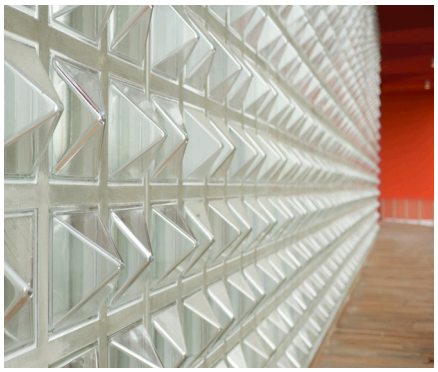




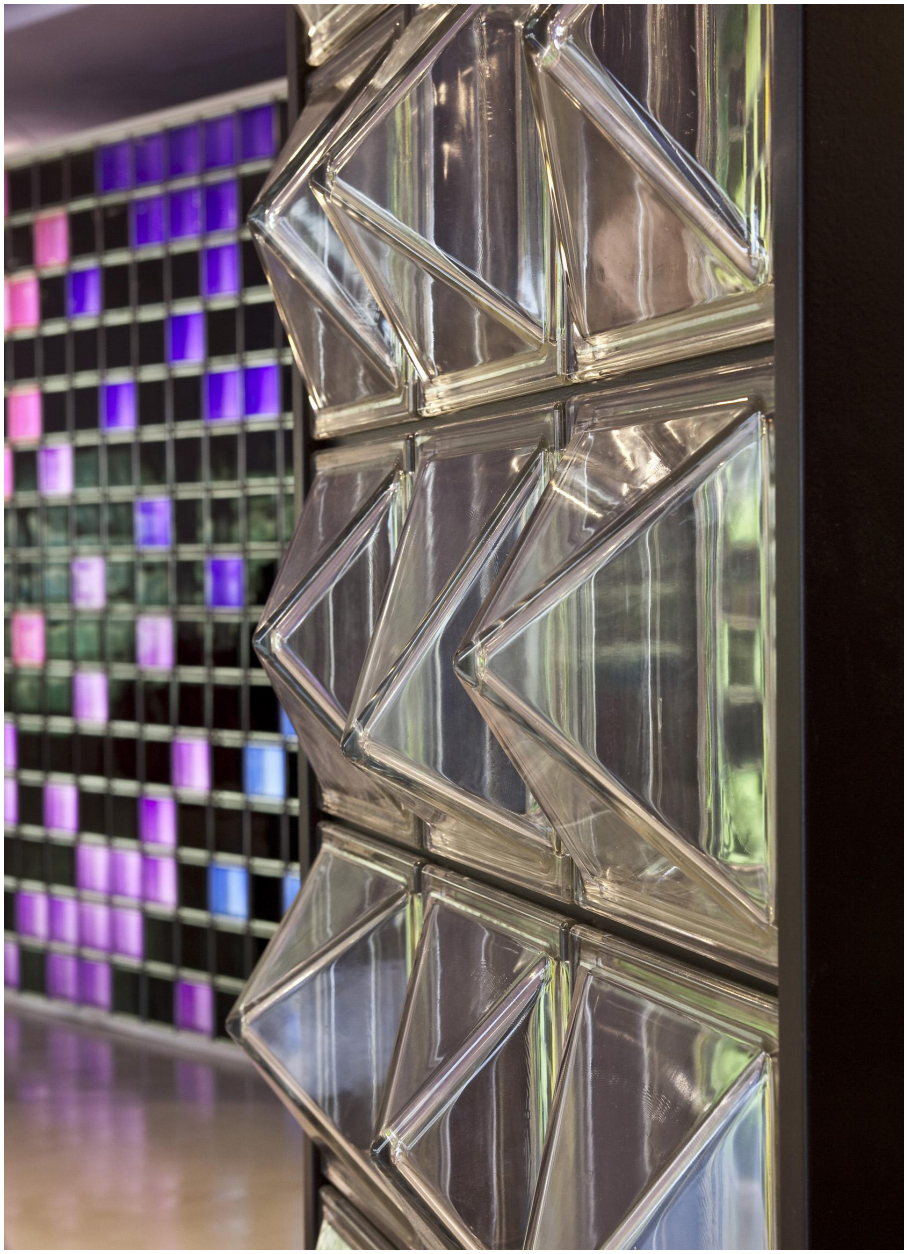
















In the Know

5 Secrets Nobody Tells You About Glass Block Windows



If you call or walk in your local home center or building material supply store and ask someone a question about glass block window design, fabrication or dare I say it – installation – you'll be lucky if they even know if they carry glass blocks in stock (by the way in most cases they don't carry this material)! Maybe you've got a unique design or a tough installation question and you not only need basic advice you need a "masters-level" input (or the "untold story") on how to work with this classic material. If you're looking for deeper input you've come to the right place. In this article we'll take a look at 5 little known secrets about glass block windows which can help you get an improved design and quality of installation. Let's dig in!

1 There are good, better and best ways to fabricate (put together) glass block windows

MGlass block window fabrication is definitely an area where a "one size fits all" approach doesn't make sense. In most cases it is best to prefabricate (or manufacture beforehand) a glass block window before you go to install it into a rough opening. The reason for this is it's very difficult to try to put the blocks together unit by unit inside the window sash. In choosing a fabrication method it is best to ask yourself, "Do I want one which will blend the best with the brickwork or the home or do I need the highest level of security, energy or water protection I can get? Would it be best for this project to choose the cheapest system?" These questions will drive whether you want to use the good, better or best fabrication methods. Let's look at the advantages and disadvantages of these 3 types of prefabrication approaches.

- **The "good"—silicone glass block windows** The silicone method of fabrication is cheapest because the blocks are butted together (with nothing filled between the inside cavities of the blocks) and can give an all glass look. On the flip side though they provide the lowest level of energy efficiency, security and are the least water tight.

- **The "better"—classic mortared together glass block window** This is the granddaddy of prefabbed windows, built with a mortar and sand mix between the blocks. Its blends nicely with a masonry foundation and does a good job with securing a property. The challenge with this type of window is the mortar joints can sometimes crack if the foundation shifts.

- **The "best"—Protect All glass block window** The "Protect All" window uses vinyl spacers vertically and horizontally between the blocks and has a 1/8" silicone bead on the outside. This window is practically impossible to break apart, is 20% more energy efficient and is more watertight than the mortared or silicone only windows discussed above. The negative is its initial purchase price is more expensive than other options.

2 Increasingly popular non-patterned (see-through) blocks can be offer complete privacy

You may be saying at this point, "Mike, this little known fact makes absolutely no sense at all! Why would I want a see-through block pattern and how can they be completely private?" The reason see-through blocks are growing in popularity is some people have tired of the wavy patterns and want a more modern block. Yet many people use glass block windows in bathrooms, showers or kitchens where they want privacy so how can they consider see-through blocks? You can get a one-side frosted or satin finished glass block, providing the modern contemporary look while maintaining complete privacy—a two for one special!

3 The strongest glass block windows are not put together with mortar!

Now this little known fact may seem totally nuts. When we make comments about something being sturdy you may say something like "it's built like a brick wall (and brick walls are built with mortar!). So – how could there be a glass block window which provides more strength than a mortared variety? Well with the Protect All glass block window system the vinyl spacers through the window are actually much tougher to break apart than mortar.

This system is so strong that it is safe to ship panels across the country with a standard trucking company. If you did this with a traditional mortared window I would almost guarantee you the prefabricated glass block window panel would arrive broken!

4 Glass block windows are emerging beyond the look associated with re-runs of *Miami Vice*

Glass blocks came to be associated with the 1980's art-deco style right out of a scene with Sonny Crockett and Rico Tubbs on *Miami Vice*. While you still can get this classic wavy pattern look with glass blocks – the material has evolved with more modern patterns, textures and even the opportunity to mix and match colors to create a stained glass type of look (there are 104 different color and finish selections to choose from!).

5 You don't have to be a skilled mason to install a glass block window into a new home or room addition

With the invention of vinyl framed glass block windows you don't need to be a skilled mason to install these windows. A premade glass block window built into a vinyl frame with a nailing fin can be installed into any rough opening with the same tools you would use to install any traditional new construction window.

The reality is the glass block window has evolved – but the education about the fabrication, design and installation options has not been communicated well. Which of these 5 little known facts about glass block windows are news to you? If you want to get "masters-level" input on how to design, fabricate or install these windows please reach out at the numbers below.





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