First Edition | 05.2022

Kite Breeze

KITE LAYING RECOMMENDATIONS

Glen-Gery

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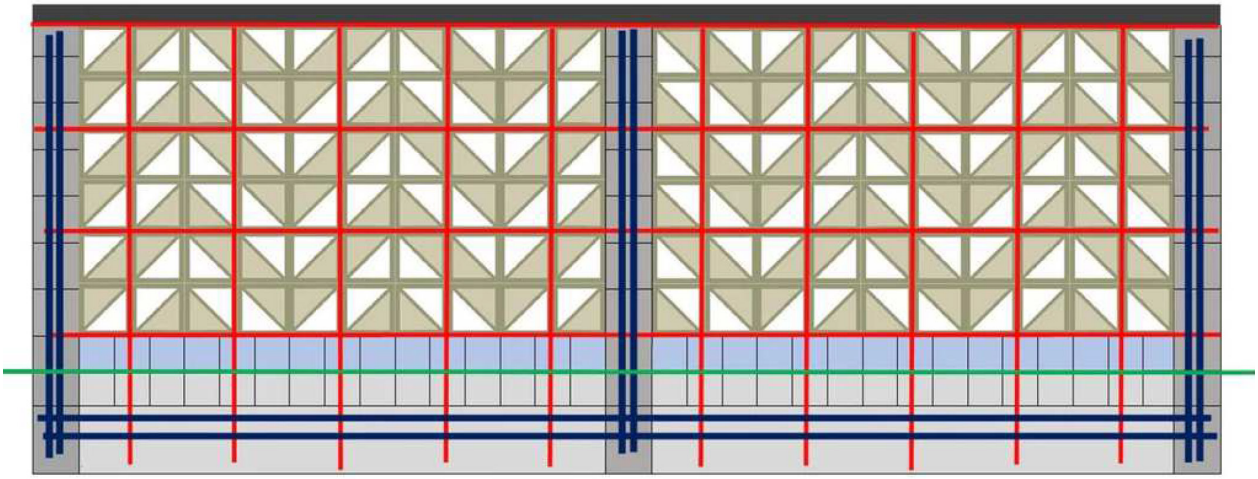
Decorative Breeze Blocks can be used indoors or outdoors as space dividers, property line dividers, feature walls and decorative accents for buildings with sun exposure.

Please note that breeze blocks are decorative, and should not be used as structural units, such as in load bearing walls. Do not install in applications where people are likely to sit or lean on the structure. Building a breeze block structure is a construction project that requires engaging with a structural engineer, professional mason or a licensed general contractor familiar with the codes and permits required by the planning department within the municipality of the project. Many cities restrict wall heights for non-load bearing concrete masonry units, and specify where breeze block structures can be built with respect to property lines, sidewalks and driveways. Before placing an order, please ensure that you have confirmed that your project meets local requirements and if a permit is needed. Returns are costly for all parties involved.

Elements of a Decorative Breeze Block Wall



Tesselle Incline Breeze Block
(11.4" x 11.4" x 3.5")

Note: Mortar is used to join all blocks

Level ground

#2 or #3 rebar

#4 rebar

Capping (bricks or steel plate)

12" x 12" x 8" column blocks on either side (filled with concrete)

First above ground course of 8" x 8" x 6" half blocks (filled with concrete)

Footing, including sub-base course of 8" x 8" x 6" half blocks (filled with concrete)

Wall Placement

Your local planning department may require a permit for your structure. Your city may have restrictions pertaining to where your wall can be placed with respect to property lines and other elements, such as driveways and sidewalks, and will have minimum requirements for masonry walls which may be more or less stringent than Tesselle requirements below. If city requirements are more stringent, follow their instructions. If our requirements are more stringent, follow our instructions.

Foundation/Footing

A licensed, local professional should determine the depth and width of the foundation. This will be based on the local codes, soil conditions, drainage, annual and daily temperature variations, and the weight of the wall. The footing should be perfectly level and incorporate high strength concrete and #4 rebar.

Columns/Piers should be embedded in the foundation. A row of blocks that match the base row may be included under the foundation surface, and may be needed in transition areas if the wall is being built on a slope. Use a 3/8" to 1/2" mortar line on the base courses.

Plan the placement of the vertical rebar (which needs to be placed between every second vertical course of Breeze Blocks, and encapsulated in the concrete footing before it cures, and not be driven into the ground).

The trench for the footing

Blocks laid to check alignment

Wall Width and Vertical Columns/Piers

Vertical Columns/Piers are required for wall strength and stability. Kite breeze blocks require a vertical column on either side of the wall for walls up to 42".

Any wall over 42" will require a column at a maximum of every 10' in width as illustrated above. Columns may be made of cinder block (typically a 12"x12"x8" column cinder block) with vertical #4 rebar inserted and ultimately encapsulated in concrete that embeds in the foundation. Holes should be drilled in the sides of the column to accommodate the #2 or #3 horizontal rebar. Piers can also be custom fabricated out of 4"x3" steel tubing with holes drilled though them or tabs welded on to accommodate the rebar.

Allow foundation to set overnight before proceeding.

Maximum Height

The maximum height for any Breeze Block wall is 6' before professional structural engineering is needed.

Laying the Breeze Blocks

- Soak the natural terracotta Breeze Block in water before setting. This will prevent the block from absorbing the moisture from the mortar. Handle blocks with extreme care during this process.
- The Kite can be fixed with with Portland cement mortar.
- The technical characteristics mortar mix shall consist of prepack-aged blend of portland cement, hydrated lime, and mineral oxidepigments.

    1) Portland Cement: ASTM C 150 (Type 1) (Type II) (Type III)

    2) Hydrated Lime: ASTM C 207,Type S

    3) Mineral Oxide Pigments: ASTM C 979

- Sand shall confirm to the requirementsof ASTM C 144.
- Working towards the center, lay two breeze blocks next to each pilaster block or vertical support to create the first course.
- Insert rebar between every 2nd course and vertical column of blocks. The thickness of the mortar line should be between 3/8" and 1/2".
- When the mortar has become firm, smooth the joints with a jointing tool.
- Let mortar dry after two rows before building any higher.

Capping stones

Laying the Capping Stones

- Once wall has been built to desired height the wall should be capped with bricks, blocks or a steel plate.
- Embed a layer of wire mesh or rebar into mortar and lay the capping stone.

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