

# Brickwork & Blockwork Guide: Building Strong and Durable Walls

Walls shape the spaces inside a home and influence durability, comfort, appearance, privacy, and long-term maintenance. Depending on the structural system and project requirements, walls may be built using clay bricks, concrete blocks, AAC blocks, or other masonry units. Good masonry is not achieved simply by stacking bricks or blocks. Material quality, mortar or adhesive selection, alignment, jointing, connections with structural elements, openings, service coordination, curing, and workmanship all matter. The correct wall system and construction method should follow approved drawings, specifications, manufacturer guidance where applicable, and professional advice.

## 1. Choose the Right Masonry Unit

Common walling materials include fired clay bricks, concrete blocks, AAC blocks, and other regionally available products. Each has different characteristics related to weight, dimensions, thermal performance, water absorption, sound insulation, installation method, and cost. Selection should consider whether the wall is load-bearing or non-load-bearing, structural design, wall thickness, exposure, fire and acoustic requirements where relevant, local availability, and workmanship. Do not change the specified walling material without checking the impact on structural loads, dimensions, finishes, services, and detailing.

## 2. Check Material Quality Before Use

Inspect bricks or blocks before accepting large quantities. Look for excessive damage, cracks, inconsistent dimensions, poor edges, contamination, or other visible defects. Where standards or project specifications require testing, certification, or particular performance values, verify the relevant documentation. Consistent unit dimensions can improve alignment, joint uniformity, plaster thickness, and overall workmanship.

## 3. Use the Correct Mortar or Adhesive

Traditional masonry may use cement-sand mortar, while some manufactured blocks may use thin-bed adhesive or another specified jointing system. The correct material and joint thickness depend on the masonry unit and project specification. Do not assume that one mortar mix is suitable for every wall system. Follow approved specifications and manufacturer instructions. Excessively thick or inconsistent joints can affect alignment, material consumption, and finish quality.

## 4. Prepare the Base Before Starting

The surface below the wall should be clean, correctly located, and ready to receive masonry. Confirm wall lines, openings, levels, and dimensions from approved drawings. Where required, check damp-proofing or other interface details before starting. Errors in the first course can continue through the full height of the wall, so initial setting out deserves careful attention.

## 5. Maintain Line, Level, and Plumb

Walls should be regularly checked for horizontal level, vertical plumb, straightness, thickness, and alignment. Use suitable tools such as spirit levels, plumb checks, string lines, or laser instruments as appropriate. Do not wait until the wall reaches full height to identify alignment problems. Frequent checks allow corrections while work is still manageable.

## **6. Ensure Proper Bonding and Jointing**

Masonry units should be arranged according to the specified bond and construction method so that vertical joints are appropriately staggered where required. Joints should be filled and finished according to the system specification. Poorly filled joints, continuous unintended vertical joints, or inconsistent bonding can reduce wall quality. Special junctions, corners, and intersections should follow approved details rather than improvised arrangements.

## **7. Coordinate Masonry With RCC Elements**

Masonry walls often meet RCC columns, beams, and slabs. These interfaces can be locations where cracks develop if detailing, movement, workmanship, or material compatibility is not properly addressed. Follow project details for wall-to-column connections, anchors, reinforcement, mesh, grooves, gaps, or other treatments where specified. Do not rigidly improvise connections without understanding the intended structural and movement behaviour.

## **8. Plan Door and Window Openings Accurately**

Door and window sizes, sill levels, lintels, frames, and service openings should be coordinated before masonry progresses. Incorrect opening sizes can lead to unnecessary cutting, filling, thick plaster, or changes to frames. Lintels and structural elements above openings should follow approved structural or architectural details. Never remove or alter structural reinforcement to accommodate an opening without professional approval.

## **9. Plan Electrical and Plumbing Routes Early**

Electrical conduits, switch boxes, plumbing lines, and other services often pass through or along walls. Plan their routes before finishing the masonry. Excessive chasing can weaken walls, create cracks, and increase repair work. Avoid deep horizontal or vertical cutting beyond permitted limits. Structural walls and RCC elements require particular care. Coordinate service routes with the relevant professionals.

## **10. Control Wall Height and Construction Sequence**

Building excessive masonry height too quickly can affect stability and joint quality, depending on the wall system and mortar. Follow appropriate construction sequences, daily lift recommendations where applicable, and temporary support requirements. Tall, slender, incomplete, or exposed walls may need temporary bracing until connected to the permanent structure.

## **11. Curing Depends on the Masonry System**

Curing requirements vary depending on the type of masonry unit, mortar, adhesive, weather, and manufacturer or project specifications. Traditional cement-mortar masonry generally requires appropriate curing, while some proprietary thin-bed systems may have different requirements. Follow the specified

method rather than applying the same curing practice to every wall system.

## 12. Protect Masonry From Damage and Weather

Fresh masonry should be protected from impact, excessive rain, rapid drying, and construction damage as appropriate. Materials stored on site should also be protected. Different masonry units may have specific storage and handling requirements. Do not overload incomplete walls or use them as supports for unrelated construction activities unless designed for that purpose.

## 13. Prepare Properly Before Plastering

Before plastering or other finishes, inspect masonry for alignment, loose material, incomplete joints, cracks, service chasing, and interface details. Complete required repairs and service testing first. The surface preparation method should suit the masonry and plaster system. Using excessively thick plaster to hide poor masonry alignment is not a good substitute for accurate wall construction.

## Common Brickwork and Blockwork Mistakes to Avoid

Common mistakes include using damaged or inconsistent units, incorrect mortar or adhesive, poor joint filling, walls out of plumb, incorrect opening sizes, uncontrolled chasing, weak junction detailing, excessive construction height without stability measures, inadequate curing where required, and hiding defects under thick plaster. Regular supervision and simple dimensional checks can prevent many of these issues.

## BuildMap Tip

Check every wall at three stages: **before starting, during construction, and before finishing**. Before starting, verify wall lines, materials, openings, and drawings. During construction, check line, level, plumb, joints, and service coordination. Before plastering, inspect interfaces, cracks, chasing, openings, and completed services. A straight and correctly coordinated wall saves time and material during plastering, tiling, carpentry, and finishing.

## Frequently Asked Questions

### Which is better: clay brick or AAC block?

There is no universal winner. The right choice depends on structural design, wall function, thermal and acoustic needs, local availability, workmanship, cost, and project specifications.

### Can I change from brick to blocks after structural design?

Do not make the change automatically. Different materials have different weights, dimensions, and detailing requirements. Obtain appropriate design review.

### Why do cracks sometimes appear where masonry meets RCC?

Cracks can have multiple causes, including differential movement, shrinkage, detailing, workmanship, material behaviour, or structural movement. The cause should be assessed before choosing a repair.

### Can electrical conduits be cut into any wall?

Chasing should be planned and controlled. Limits depend on wall type, structural role, thickness, and project requirements. Avoid uncontrolled cutting.

### **Should all masonry be cured the same way?**

No. Curing requirements depend on the masonry system, mortar or adhesive, specifications, weather, and manufacturer guidance.

## **Conclusion**

Well-built walls require more than good-looking bricks or blocks. Select the appropriate masonry system, verify material quality, use the specified mortar or adhesive, maintain line and level, detail junctions correctly, coordinate openings and services early, follow the right curing method, and inspect walls before finishes hide the work. **Good masonry creates a better base for plaster, paint, tiles, doors, windows, and the long-term performance of your home.** BuildMap.in aims to make the construction journey easier by helping users discover construction-related professionals, services, materials, and practical information through one digital platform. **BuildMap.in — One Platform. Endless Home Solutions.** Plan. Connect. Build.

*Disclaimer: This article provides general educational information only. Masonry materials, wall thicknesses, structural requirements, mortar or adhesive specifications, connections, curing, and service-chasing limits vary by project. Follow approved drawings, applicable standards, manufacturer instructions, and qualified professional advice.*