

Protecting Masonry Materials and Walls During Construction



To assure best results when building with architectural masonry, taking a few simple steps at the jobsite to protect the masonry materials and walls during construction (and after completion of the masonry work) will help deliver great results at less expense.

Protect Masonry Materials Stored on Site

Units should be stored on pallets, and not directly on the ground. They should be adequately covered to prevent water absorption or staining from mud or other materials on the site.

Staging deliveries so that masonry materials are not left unused on the jobsite for prolonged periods can also be helpful in avoiding discoloration or staining due to site conditions or prolonged weathering on the pallet.

Once the units are removed from covered storage, they should be handled so that they are not exposed to water or soil. The wall under construction should be protected from mud splatters or other conditions that could result in staining.

QUICK POINTS

Taking steps to protect the masonry from staining will produce better results and less expense.

Keep stored materials covered and clean.

Cover uncapped walls or exposed details during construction to avoid water penetration and consequent efflorescence.

Protect the wall from water infiltration until permanent capping has been installed

Prevent Water Penetration into the Walls During Construction

At the end of the workday, and after completing each segment of the masonry wall, the top surface of the masonry must be protected to prevent water penetration. Use a plastic tarp to cover the unfinished masonry work to protect it from the weather. Cap the walls as soon as possible after building them. Uncovered masonry walls are vulnerable to large quantities of water entering the wall during rainstorms, which can lead to the formation of efflorescence – especially if the wall does not have a proper flashing and weep system installed. This advice also applies to uncapped columns or other details.



Protect the Wall After Masonry Construction is Complete Until a Permanent Coping is in Place

The time between when the mason finishes installing the wall and when the roofing contractor permanently caps the wall is a period when staining problems occur most often. While it is required by code that the top of walls be protected from moisture entering until the permanent coping is in place, failing to protect the top of wall at this time has resulted in the most severe moisture related staining of the masonry.

One effective and simple way to ensure that completed walls remain covered after the mason has left the project, is to install an inexpensive membrane at the top of the wall upon completion. Flexible flashing materials such as EPDM are inexpensive, can be glued to the top of the wall and left in place below the blocking when the permanent coping is installed. Bolts and embeds should be sealed to ensure moisture cannot enter the wall from the top. This simple step can prevent the majority of problems mason contractors typically encounter due to moisture related staining from uncovered walls.



Adhering a water resistive membrane to the top of the wall – this can be left in place when the roof is installed

Note on Fully Grouted Walls

While the collection area for water is not as obvious, fully grouted walls are equally vulnerable to efflorescence formation if left unprotected. A capped fully grouted wall will be an effective barrier wall if built with integral water repellent in the block and mortar, and preferably having a post-applied sealer applied to the exterior of the walls. Leaving the top of a fully grouted wall exposed to weather, however, is likely to produce bad results. If left exposed, the grouted cores will absorb rainwater. Unlike a partially grouted wall, where a flashing and weep system allows drainage, the fully grouted wall will store the water for a longer period of time and as the water migrates to the surface of the wall, this may result in efflorescence. As a result, we recommend that the same degree of care be exercised to protect the top of a fully grouted wall from rain using the methods described above.



*Top of wall protection partially removed by roof contractor prior to permanent coping installation
- note efflorescence formation*



Questions?

For more information, visit
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