OTTAWA STONEWORK

Spalled Brick Replacement

Flaking and spalled bricks: what building research says about frost and salts, replacing individual bricks, and matching size, colour and texture

5 Expert Answers from Masonry IQ

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Q1

Should I worry about a few spalled bricks near my Nepean driveway?

Spalled bricks near a driveway are worth having a mason look at, but the right level of concern depends on what is actually happening at the wall. A few isolated spalled faces can point to several different conditions, and a mason at the wall can tell what is causing it and how far it has progressed.

Published Ontario contractor pricing, 2025–26 puts spalled brick replacement at about $20 to $45 per brick installed, though your quote will differ. Small jobs can carry a minimum charge, so ask about one when you contact masons.

A few things shape what the work involves and what it costs:

- How many bricks are affected and whether the damage is confined to the surface or goes deeper into the unit
- Whether the surrounding mortar joints are also deteriorating
- Whether the bricks are on a house wall, a garden wall, or a freestanding feature near the driveway
- Whether matching replacement brick is available, since colour and texture matter on a visible wall
- Whether scaffolding or a lift is needed to reach the area safely

On the question of what caused the spalling, a National Research Council building digest (CBD-30) notes that salt damage can look very similar to frost damage. A mason inspecting the wall can tell you whether the surrounding bricks need attention.
Ask for a written quote that names the number of bricks to be replaced, where matching brick comes from, how mortar colour and joint profile will be matched, and what is included for cleanup and disposal.

Q2

Why is only the bottom row of my brick spalling in Barrhaven?

Why your brick is spalling only at the bottom row is something a mason needs to see at the wall.

A National Research Council building digest (CBD-30) notes that frost damage depends on "the degree of saturation with water, the rate and number of times of freezing, the strength and elastic properties of the material, and the nature of the pore structure," and that "below a certain degree of saturation no damage occurs." The same digest notes that salt spalling "is very similar in appearance to that produced by frost action, and in many cases it is difficult to determine which mechanism has caused it."

A few things a mason will look at:

- whether the mortar joints at that course are open or crumbling, letting water in
- whether there is flashing and weep holes at the base of the veneer directing moisture out
- whether the brick at that level is a different unit than the rows above
- whether white staining or efflorescence is present alongside the spalling

What to ask for in writing before any work starts: which bricks are being replaced and how many, where the matching brick is coming from, how mortar colour and joint profile will be matched, how the crew will control silica dust when cutting out old units, and what cleanup and disposal are included. Ask whether the quote covers an inspection of the flashing and weep holes at the base of the wall, since the Code's flashing and weep holes sit at the base of a veneer wall.

Start with a mason who can look at the wall in person, because the pattern you are describing has more than one possible explanation and the right repair depends on the right diagnosis.

Q3

At what point do Ottawa masons stop replacing spalled bricks one by one?

We found no source that sets a number or percentage where individual brick replacement automatically gives way to a larger rebuild; that call comes from what a mason sees on the wall. The decision turns on how the damage is distributed, how the surrounding masonry is holding together, and what the wall is doing structurally.

A mason will look at a few things when assessing whether to replace bricks one by one or to take down and relay a section. If the mortar joints around the damaged bricks are also failing, or if the wall has moved or bowed, individual replacement may not address what is happening behind the face.

Published Ontario contractor pricing for 2025-26 puts individual spalled brick replacement at about $20 to $45 per brick installed. Your quote will differ. Small jobs can carry a minimum charge, so ask about one. There are too few published prices for section rebuilding to quote a range; ask each mason to give you a written price that separates labour, materials, matching brick sourcing, and any scaffolding or lift needed for upper courses.

When you have two written quotes side by side, compare them on the same points: the wall area and the number of bricks each mason is pricing, the joint depth and mortar type proposed, where matching brick is coming from and whether there is a cost for sourcing it, whether scaffolding is included or added separately, and what each quote says about cleanup and disposal of broken brick and mortar debris.

Q4

Why are the faces of my bricks popping off in Orleans?

When the face of a brick breaks away from the body behind it, that is called spalling. A mason looking at your wall can tell you what is driving it; according to a National Research Council building digest (CBD-30), frost damage depends on the degree of saturation with water, the rate and number of times of freezing, the strength and elastic properties of the material, and the nature of the pore structure, and salt damage "is very similar in appearance to that produced by frost action, and in many cases it is difficult to determine which mechanism has caused it."

One thing worth knowing before you apply anything to the surface: CBD-30 notes that with a vapour-permeable but water-repellent membrane on the outer face, salts can be deposited behind the surface layer and the resulting force of crystallization can cause the skin to spall. Ask the mason before putting any sealer on the wall.

A mason's inspection will look at how many bricks are affected, how deep the damage goes, whether the mortar joints are also deteriorating, and where moisture may be entering. From that, they can say whether the job is selective brick replacement, repointing, or a combination. Published Ontario contractor pricing, 2025-26 puts spalled brick replacement at about $20 to $45 per brick installed, and repointing at about $10 to $30 per sq ft of wall; your quote will differ based on how many bricks need replacing, the wall height, whether scaffolding is needed, and whether matching brick is readily available.

Ask the mason where replacement brick will come from and how closely it matches your existing units in size, colour, and texture. The Ontario Building Code (9.20.2.2.(1)) states that used bricks shall be free of old mortar, soot or other surface coating, so if salvaged brick is proposed, ask how it will be prepared.

When you have two written quotes in front of you, put these side by side: the wall area each contractor measured, the joint depth and mortar type specified, the number of bricks each proposes to replace and where the matching brick comes from, whether scaffolding is included and at what cost, and what each quote covers for cleanup and disposal of broken brick and old mortar.

Q5

Patching spalled brick instead of replacing it in Ottawa, okay?

Patching over a spalled face is not the same repair as replacing the brick, and whether it makes sense depends on how much of the face is gone and what caused the spalling in the first place.

A National Research Council building digest (CBD-30) notes that salt spalling "is very similar in appearance to that produced by frost action, and in many cases it is difficult to determine which mechanism has caused it." That matters here because a patch applied over a brick that is still absorbing water or cycling salts may not hold. The digest also cautions that a vapour-permeable but water-repellent coating on the outer face can cause salts to deposit behind the surface layer, where crystallisation pressure can cause the skin to spall. So the cause of the original damage shapes whether any surface treatment makes sense.

What to ask for in writing before any work starts: which bricks the mason proposes to patch versus replace and why, how the mason will assess whether the remaining brick face is sound enough to hold a patch, where matching replacement brick comes from if full replacement turns out to be needed, how mortar colour and joint profile will be matched on any replaced units, and how silica dust will be controlled during any cutting or grinding work.

Before committing to a patch approach, ask the mason to explain what they will do if the patch fails within a season, and get that answer in writing as part of the warranty.

Disclaimer: This guide is provided for informational purposes only by Ottawa Stonework. It does not constitute professional advice. Always consult qualified contractors and your local building authority (the City of Ottawa) before starting any fence project. Fences in Ottawa must meet the City's Fence By-law, and a free locate is required before digging any post hole. Information is current as of November 15, 2026 and may change. Visit **ottawastonework.com** for the latest answers.