

# Lintels: The Steel Above Your Windows and Doors

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## 1. The Beam You Never See

Stand in front of your home and look at the front door. Look at the windows. Look at the wide garage opening. Above every one of those openings, there is a beam of steel doing hard work that almost nobody ever thinks about.

That beam is called a lintel. It is one of the most important structural pieces in a brick home, and it is also one of the least understood. Most homeowners have never heard the word. That is fine. You did not buy a house to study masonry. But if you own a brick home — especially here in North Texas, where the summers cook and the winters surprise and the clay soil moves like it has a mind of its own — the lintel deserves a few minutes of your time. Because when it fails, and it will fail if it is neglected long enough, it takes the brick above it with it.

Let me describe what you are looking at. The most common lintel in a residential brick home is made of steel angle iron. Angle iron is just what it sounds like: a piece of steel shaped like the letter L. One leg of the L lies flat, facing up. The other leg stands vertical, facing out toward you. The brick that sits above your window rests its weight on the flat, horizontal leg. The vertical leg covers the gap between the top of the window frame and the bottom of the brick, so you see a thin band of painted steel running across the top of the opening when you stand outside.

If you walk around your house, you will find a lintel over every window, every exterior door, the patio door, and — the biggest and hardest-working of them all — the garage door. A typical suburban home has a dozen or more. Some homes have twenty or thirty. Every one of them is carrying weight, every hour of every day, without thanks and without maintenance.

Here is what makes the lintel unusual in a house full of hidden parts. It is not fully hidden. It sits right at the surface, at the front of the wall, where sun and rain and humidity reach it. The brick behind it and above it are masonry — they handle weather well. But the lintel is steel, and steel exposed to weather needs protection. On most homes, that protection is a coat of paint. That is it. A thin layer of paint stands between the steel and the Texas atmosphere, and that arrangement works only as long as the paint stays intact.

Walk outside right now and look at one of your windows. See the painted strip of steel above the window frame? That is the face of your lintel. It might be white, or it might be painted to match the trim. It probably looks fine from twenty feet away. Get closer. Look along the bottom edge, where the steel meets the window frame. Look at the ends, where the steel disappears into the brick. If you see tiny bubbles in the paint, or a faint orange-brown stain bleeding down onto the frame, or paint that is peeling in a thin curl — those are the first words of a conversation you need to have with a mason.

I have spent fifty years with my hands on brick. I have stood on more driveways than I can count, looking up at lintels in every condition from brand new to catastrophically failed. I have cut rusted steel out of walls in Dallas, Fort Worth, Arlington, Plano, and every suburb in between. What I have learned, job after job, is that the lintel fails slowly and then suddenly. Slowly, because rust eats steel a fraction of a millimeter at a time. Suddenly,

because one day the mortar joints above the window crack in a staircase pattern, or a chunk of paint flakes off and reveals flaking steel underneath, and the homeowner realizes the damage has been growing for years.

The purpose of this book is simple. I want you to understand what a lintel is, what it does, how it fails, and what a proper repair looks like. Not so you can do the repair yourself — you should not. Lintel work is structural work, and structural work on brick walls belongs to people who do it for a living. I want you to understand it so you can catch problems early, ask the right questions when a contractor gives you a bid, and recognize the difference between a repair that will last and a repair that will need redoing in five years.

Let me take you inside the wall, in plain language, and show you what is holding your house together.

Before we go further, it helps to understand how your brick wall is built. The brick on most North Texas homes is not structural in the way people imagine. It is a veneer — a single layer of brick, called a wythe, that hangs on the outside of the house. Behind the brick there is an air gap, and behind the air gap is the wooden framing of the house, wrapped in sheathing and building paper. The brick veneer carries its own weight down to the foundation, but it depends on metal ties connecting it back to the framing for stability against wind.

This matters because the lintel's job is specific: it carries the brick veneer above an opening. Everywhere else along the wall, the brick carries itself straight down to the foundation. But above a window or a door, there is no wall beneath — there is a hole. The brick above the hole has to be carried across it. That is the lintel's job, and it is the only thing doing it.

So when you look at your house, understand this: above every opening, the weight of the brick is being funneled into two small spots at each end of a steel bar. The bar is painted. The paint is aging. The steel underneath is exactly as old as the house. If your home was built in the 1980s or 1990s, that steel has been in place for thirty or forty years. Even if it was properly painted when new, paint does not last thirty years without maintenance. Somewhere on your house, at least one lintel is rusting right now. The question is not whether it will need attention. The question is whether you catch it early, when the fix

is straightforward, or late, when the fix involves tearing down brick and rebuilding it.

It is worth saying a word about why this matters so much here in North Texas in particular. The Dallas–Fort Worth metroplex is overwhelmingly a brick-veneer market. Drive through any suburb — Arlington, Grand Prairie, Mesquite, Richardson, Garland, Irving — and the great majority of homes built from the 1970s through the 2000s wear a single wythe of brick over wood framing. That means the region holds hundreds of thousands of steel lintels, most of them installed with nothing but a coat of paint for protection and no flashing above them. They are all aging on roughly the same clock.

Our climate is unusually hard on that arrangement. The summer heat bakes the south and west walls, breaking paint down faster. The humidity feeds the rust reaction year-round. Spring hailstorms — and North Texas gets its share — chip and dent painted steel, opening fresh bare spots. And our expansive clay soils add a stress most regions do not have: the ground swells and shrinks with moisture changes, the foundation moves slightly, and the brick veneer rides along, working the mortar joints and the lintel bearings a little more with every cycle. None of this dooms a lintel. But it means the maintenance clock runs faster here than in drier, milder climates, and it means the "I will get to it someday" approach costs more here than it would elsewhere.

There is also the age factor. A large share of DFW's brick housing stock is now thirty to fifty years old. That is exactly the window when original lintels start showing their age — the paint has been through decades of sun, the back side has been through decades of damp, and the steel is telling the story. If your home falls in that age range and the lintels have never been addressed, this book is arriving at the right time. What you learn in the next eleven chapters will help you get ahead of the problem instead of reacting to it.

That is what the next eleven chapters are for.

## **2. How a Lintel Carries a Wall**

To understand why lintels fail the way they do, you need to understand how they work. The good news is that the concept is straightforward. A mason from ancient Rome could explain it to you. You span an opening with

something strong, and the weight above travels down through that something to solid support on both sides.

Let us trace the load path — the route the weight takes — on a typical window.

Above your window, there are several courses of brick running up to the eave or up to the second story. Every one of those bricks has weight. That weight presses down on the bricks below it. The bricks below press down on the bricks below them. All of this weight travels downward until it reaches the steel lintel. The lintel interrupts the downward flow. Instead of traveling straight down, the weight transfers onto the flat leg of the angle iron.

Now the steel is carrying it. The steel spans the opening like a tiny bridge. The weight pushes down on the steel, and the steel pushes back up, and the whole thing stays in place because the steel is stiff enough not to bend under the load. At each end of the opening, the steel rests on the brick — this is called the bearing. The weight travels along the steel to the ends, and at the ends it dumps back into the brickwork below and beside the opening, and from there it travels down to the foundation as normal.

The key detail in that description is the bearing. Bearing is the amount of the lintel that actually sits on the brick at each end. On residential work, a proper bearing is typically around four inches of steel sitting on solid brick at each side. Four inches does not sound like much, but it is enough — if the brick it sits on is solid and if the steel is properly sized.

Why does bearing length matter? Because all of the weight the lintel carries gets concentrated at those two small spots. Imagine standing on a thin board that bridges a gap. If the board's ends rest on solid blocks with several inches of overlap, you feel secure. If the board's ends barely catch the edge of each block, every creak of the board makes you nervous. The lintel is the same. Short bearing means the load is concentrated on a tiny area of brick, and brick under concentrated load can crack, crush, or spall. When the bearing brick fails, the lintel loses its support, and the brick above the opening loses its carrier. That is how a sagging lintel starts to move the wall.

Bearing problems show up in real homes for a few reasons. Sometimes the original builder cut the lintel a little short to save steel. Sometimes the brick at

the bearing points deteriorated — mortar joints fail, a brick spalls, and the support surface shrinks. Sometimes a previous repair replaced the lintel with a new one that was not long enough. And sometimes the opening itself was widened — a homeowner replaces a standard garage door with a wider one, the opening grows, the lintel stays the same length, and the bearings get short on both ends.

There is a second structural concept worth knowing: the triangle. When a mason builds brick above a lintel, the load does not press straight down across the full width of the span the way you might expect. Masonry tends to arch. Above a flat lintel, the brick forms a natural triangle of load — the heaviest pressure concentrates in a triangular region directly above the middle of the opening, while the brick near the edges partially supports itself by friction and by leaning on the surrounding wall. This is why a lintel over a window carries less weight than you would calculate by simply stacking up all the brick above it. The wall helps carry itself.

That arching effect is helpful, but it is not a safety net you can rely on. It depends on the mortar joints being sound. When rust jacking or moisture damage cracks the mortar joints above a lintel — which is exactly what a failing lintel does — the arch breaks down. Then the full weight bears on the steel, and if the steel is already weakened by rust or was undersized to begin with, the situation compounds. Weak steel, broken arch, full load: that is the sequence that turns a maintenance issue into a structural problem.

One more piece of the system: the lintel does not work alone. Above the lintel, there should be flashing — a thin, water-shedding layer that catches any water that gets behind the brick and directs it out over the face of the lintel, through small openings called weep holes. The flashing protects the steel from the water that inevitably works its way through brick and mortar. When flashing is missing — and on many older homes, it is missing, because the original builder skipped it — the lintel sits in a damp environment for its entire life. That is the single biggest reason lintels rust. We will talk about flashing in detail in Chapter 8, because a replacement lintel without flashing is not a complete repair. It is a countdown to the next failure.

There is a detail about bearings that deserves a closer look, because it is where many older installations fall short. When the original mason set the lintel, the

ends rested on the brick of the wall — but what exactly did they rest on? In good work, the lintel sits on solid brick units, level, with the full bearing length engaged. In hurried work, the lintel end may sit partly on a mortar joint, or on a cut piece of brick, or on brick that was already soft. Mortar compresses and crumbles under concentrated load far more readily than brick does. A lintel bearing on a mortar joint is a lintel whose support is slowly disintegrating.

Age makes this worse. The mortar at the bearing points is often the oldest and most weathered mortar in the wall, because the ends of the lintel are where water collects and where the steel's own rust expands against the joint. I have opened walls where the bearing brick was sound but the mortar around it had turned to sand, leaving the lintel end sitting in a pocket of loose material. The steel had not failed. The seat had failed. The repair in that case includes rebuilding the bearing — cutting out the deteriorated material and laying the seat back up solid before the new steel goes in. This is part of why a proper replacement takes the time it takes. The visible work is the steel and the brick. The structural work is in the seats, hidden in the wall, doing the job nobody sees.

It is also worth understanding that the lintel and the wall move differently. Steel expands and contracts with temperature more than brick does. On a long garage lintel, the difference across a Texas summer day — from a cool morning to a 105-degree afternoon — is measurable. The steel grows slightly, the brick does not keep up, and the ends of the lintel work back and forth in their seats, a tiny movement, thousands of cycles over the years. This thermal working loosens the bearing over time and opens hairline paths for water. It is not a design flaw. It is physics. But it is one more reason the bearing points deserve respect, and one more reason the seats need to be solid when the new steel goes in.

So the system, when it is right, looks like this: properly sized steel with adequate bearing on solid brick at each end, flashing above it to shed water, weep holes to let water out, and sound mortar joints above that let the masonry arch do its share of the carrying. Every one of those pieces matters. When homeowners ask me why one lintel failed and another on the same house looks fine, the answer is almost always in one of those details — a

missing piece of flashing, a short bearing, a steel size that was fine for a window but not for the garage door it actually spans.

Understanding this load path does something useful for you as a homeowner. It tells you where to look. You cannot see the bearing — it is buried in the wall. But you can see the mortar joints above the opening, and you can see the face of the steel, and you can watch for the signs that the system is under stress. That is what Chapter 6 is for. First, though, we need to talk about the enemy. Chapter 3 is about rust, and rust is why most of the lintels I replace needed replacing.

### **3. Rust Never Sleeps**

Steel and water do not mix. That is the entire story of lintel failure in one sentence. Everything else in this chapter is detail — but it is detail worth knowing, because it explains why the damage always looks worse on the inside than on the outside, and why painting over rust never works.

Rust is the oxidation of iron. The steel in your lintels is mostly iron, and when iron meets oxygen and water, it forms iron oxide — rust. The reaction needs all three ingredients: iron, oxygen, and water. Remove any one of them and the rusting stops. That is the theory behind every corrosion-protection strategy ever invented. Paint tries to remove the water and oxygen by sealing the steel. Galvanizing adds a zinc coating that sacrifices itself before the steel rusts. Hot-dip galvanized steel, properly done, can resist rust for decades. Bare or poorly painted steel in humid air can start rusting within months.

Texas is a hard place for steel. Our air is humid much of the year. Summer heat does not prevent rust — it accelerates the chemical reaction. Our storms drive rain horizontally into every crack and joint in the wall. Hail damages paint and exposes bare metal. And the dew cycle does the quietest damage of all: on cool mornings, moisture condenses on every cold surface, including the steel inside your wall, and then the sun bakes it off, and then the next night it condenses again. Thousands of cycles a year, each one giving the rust a fresh drink of water.

The most important thing to understand about lintel rust is where it starts. It does not start on the face you can see. It starts on the inside edge — the back of

the horizontal leg, the part buried against the brick, the part you will never see until the steel is cut out of the wall. Here is why: the back of the lintel sits in the air gap between the brick veneer and the house framing. That gap is not sealed. Air moves through it, carrying moisture. Water that penetrates the brick — and all brick walls admit some water, that is normal and expected — runs down the back of the brick and across the top of the lintel. If there is flashing, the water is directed outward. If there is no flashing, the water pools on the back of the steel and sits there.

The face of the lintel, meanwhile, has its coat of paint. The paint may be aging, but it still keeps most of the rain off the front surface. So the front looks acceptable — maybe a little chalky, maybe a bubble or two — while the back is rusting aggressively in standing water. This is why I tell homeowners not to trust the visible face. I have cut out lintels whose painted faces looked merely weathered, and found the back side eaten down to half its original thickness, flaking apart in my hands. The inside edge always rusts first. By the time the face shows serious damage, the back is already far gone.

There is a second place rust loves: the ends. The ends of the lintel are buried in the brick at the bearing points. They sit in mortar, which holds moisture. They are never painted — the original painter only painted what was visible. So the bare ends sit in damp masonry for the life of the house, rusting slowly, and this matters for two reasons. First, the ends are the bearing — the part of the steel that does the structural work of transferring load into the wall. Second, rust at the ends expands, and expansion in a confined space pushes brick and mortar apart. We will get to that in the next chapter.

Paint failure is the trigger for most visible rust. Paint on a lintel fails in a predictable sequence. First, the paint chalks — the surface goes powdery as ultraviolet light breaks down the binder. Then it loses adhesion in small spots, usually at the bottom edge where water collects and at the ends where the steel enters the brick. Then those spots bubble as rust forms underneath and pushes the paint outward. Then the bubbles break, exposing rusted steel, and the cycle accelerates: bare steel rusts, rust expands, more paint lifts, more steel is exposed.

Once rust gets a foothold under paint, repainting over it does not fix it. This is worth stating plainly because it is the most common mistake homeowners

make. Wire-brushing loose paint and rolling on a fresh coat looks like a repair. It is not. The rust continues underneath the new paint, feeding on the moisture trapped beneath it, expanding, and within a year or two the new paint is bubbling again. Worse, the fresh paint hides the progression — you cannot see what you cannot see, and the steel keeps losing section underneath a face that looks newly maintained. We will come back to this in Chapter 7.

What about the steel itself? Not all lintels are equal. Older homes may have plain carbon steel lintels with nothing but paint for protection. Newer or better-built homes may have galvanized lintels, which last longer but are not immortal — the zinc coating gets consumed over time, especially in persistently wet conditions, and once the zinc is gone the steel rusts like any other. In commercial work you will see stainless steel lintels, but in residential North Texas they are rare. When I replace a lintel, I use corrosion-resistant materials, because the replacement needs to outlast the repair. The original lintel lasted twenty or thirty years before it became a problem. The replacement should do better.

There is one more factor that speeds everything up: dissimilar metals and salt. It is a minor factor in most homes, but worth a sentence. When two different metals touch in the presence of moisture, the less noble metal corrodes faster — this is galvanic corrosion. On a house, this rarely matters for lintels. But de-icing salts and pool chemicals can accelerate rust on nearby steel, so if you have a pool close to the house or you salt an icy driveway right against the garage, the lintels near that exposure have a harder life.

Let me put the whole picture together the way I explain it at the kitchen table. Your lintels are steel bars sitting at the front of your wall, carrying brick, exposed to Texas weather, protected mostly by paint that is aging. The back side of every lintel is wetter than the front. The ends are bare steel buried in damp mortar. Rust starts at the back and the ends, where you cannot see it, and works outward. By the time you see orange staining on the brick below a window, the steel has been losing thickness for years.

That sounds grim, but it is not a reason to panic. It is a reason to look. A rusting lintel caught early is a straightforward replacement: the steel comes out, new steel goes in, the brick goes back, and the wall is good for decades. A rusting lintel ignored for years becomes a jacking problem — rust expands,

and expansion moves brick, and moved brick is a much bigger repair. That is Chapter 4.

One pattern I see constantly in North Texas is worth calling out: the north and east walls fail first. The south and west walls get the brutal sun, which breaks paint down faster — but they also dry fast after rain. The north wall stays shaded and damp. Morning dew lingers there hours longer. The steel behind the brick on the north side lives in a damper microclimate than the identical steel on the south side, and it rusts faster. When I inspect a home, I always start on the north and east elevations, because that is where the advanced cases usually are. If you take one shortcut from this chapter, take this one: check the shaded side of your house first. The sunny side will look worse cosmetically — chalked paint, faded color — while the shaded side is worse structurally. Appearances mislead. Moisture does not.

The dew cycle deserves a fuller explanation, because it is the quietest and most relentless source of water your lintels face. It works like this: overnight, as temperatures drop, every surface in and around your wall cools. The steel lintel, being metal, cools faster than the brick around it. When the steel's surface temperature drops below the dew point of the air in the wall cavity, moisture condenses directly onto the steel — the same way a cold glass sweats on a summer day. This happens inside the wall, where you cannot see it, on the back side of the lintel, where the paint is thinnest or absent. Morning comes, the sun warms the wall, the moisture evaporates. The steel is wet, then dry, then wet again. In North Texas, this cycle runs most nights of the year — hundreds of wet-dry cycles annually, each one a fresh corrosion event on steel that never fully dries.

This is why "it does not rain that much" is not a defense. Rain is only one source of water, and for lintels, it is not even the main one. Condensation, humidity, and the water that wicks through brick and mortar during every storm — even storms that never touch the lintel directly — keep the back side of the steel damp far more often than the face. The face dries in the sun. The back side does not. When homeowners tell me their lintels should be fine because the eaves overhang protects them, I explain the dew cycle, and the conversation changes. The eave stops rain. It does not stop condensation.

There is a related point about brick itself. Brick is porous. It absorbs water during rain and releases it slowly afterward. That is normal and healthy — brick is designed to manage moisture this way. But it means that after every rain, the brick above and around your lintel stays damp for hours or days, holding moisture against the steel's ends and back side. The more saturated the brick, the longer the steel stays wet. This is another reason the shaded walls suffer most: their brick dries slowest, so their steel stays wet longest. Everything in this chapter points the same direction. Water finds the steel. The steel cannot defend itself. Only the details — coating, flashing, drainage — stand between the two.

The takeaway from this chapter is simple: respect the rust. It never sleeps, it starts where you cannot see it, and paint alone will not stop it once it begins. What you can do is watch for the signs, keep water moving away from your walls, and call a mason when the signs appear instead of reaching for a paintbrush. The next chapter explains what happens if you do not — and it is the chapter that will make the warning signs in Chapter 6 make sense.

#### **4. Jacking: When Rust Lifts Brick**

Here is the fact that surprises almost every homeowner I meet: rust is bigger than the steel it replaces. When iron turns to iron oxide, the rust takes up far more space than the original metal — several times the volume. The steel is not just dissolving. It is growing.

That growth is the whole story of this chapter, and it is the reason a rusting lintel becomes a structural problem rather than just an ugly one. Think about it physically. The back of your lintel is rusting in a tight space between the steel and the brick above it. As the steel turns to rust, it expands. The rust has nowhere to go, so it pushes. It pushes up against the brick sitting on the lintel. It pushes out against the mortar joints. And it does this with enormous, slow, relentless force.

Masons call this rust jacking. The name is accurate — the rust acts like a jack, lifting the brickwork above the opening a fraction of an inch at a time. It does not sound like much. A fraction of an inch. But a brick wall is a precise thing. The mortar joints are thin. The courses are level. When something pushes the

brick above a window upward by even a sixteenth of an inch, the wall tells on it.

The first thing the wall does is crack the mortar joints. Mortar is strong in compression — it handles the weight of the wall pressing down just fine. But mortar is weak in tension, and rust jacking puts the joints in tension. The rust pushes up, the weight of the wall pushes down, and the mortar joints in between get pulled apart. The cracks follow the weakest path, which is the mortar, and on a brick wall the mortar joints run horizontally and vertically in a pattern that makes the cracks step diagonally — the stair-step crack. If you have ever seen a staircase-shaped crack climbing the brick above a window, you have seen rust jacking's signature.

As the jacking continues, the damage spreads. The lifted brick courses separate from the courses beside the opening, opening vertical cracks at the sides of the window. The soldier course — the row of bricks standing on end directly above many lintels — starts to tilt or bow outward as the expanding rust pushes the bottom of the wall out. Gaps open between the window frame and the brick. In advanced cases, whole sections of brick above a garage door lift and separate, and you can see daylight through the cracks from inside the garage.

Let me be clear about the force involved, because homeowners sometimes ask whether this is really as bad as it sounds. Rust expansion can generate pressures in the tens of thousands of pounds per square inch. Brick and mortar cannot resist that. Nothing in a residential wall can resist that. The rust will move the brick — it is only a question of how much and how far. I have seen jacking lift brick courses a full half inch above a garage door. I have seen it push the brick out so far that the soldier course was visibly leaning. At that point you are not repairing a lintel. You are rebuilding a section of wall.

There is an important distinction to make here, because it affects how the repair is planned. Jacking damage has two parts: the rusted steel, and the displaced brick. The steel must be replaced — there is no saving steel that has expanded and flaked. But the brick may or may not be salvageable. If the jacking is caught early, the brick above the opening can often be left in place or reset with minimal disturbance. If the jacking has gone on for years, the brick is cracked, displaced, and sometimes broken, and a section of the wall

has to come down and be rebuilt. The longer the jacking runs, the more brick comes down. That is the cost of waiting, measured in bricks.

For example, imagine a homeowner who notices a small stair-step crack above the living room window. It is hairline, barely visible, easy to ignore. Two years pass. The crack widens. A rust stain appears on the brick below the window. The homeowner paints the lintel, which looks better for a while. Two more years. Now the crack is wide enough to fit a finger, the soldier course above the window is tilting outward, and there is a gap between the window frame and the brick where you can see into the wall. What started as a one-day lintel replacement is now a multi-day job: the lintel comes out, and so does a section of brick, and it all has to be rebuilt and matched. The steel cost the same either way. The waiting is what got expensive.

This is the pattern I see over and over, and it is why I wrote this book. The steel is the cheap part. The brick is the expensive part. Rust jacking turns a steel problem into a brick problem, and brick problems cost more — more labor, more material, more matching, more time. Every month of jacking is more displaced brick.

There is one more consequence of jacking worth knowing: water intrusion. As the rust lifts the brick and opens the mortar joints, it creates channels for water to enter the wall. Water gets in behind the brick, runs down, and reaches the already-rusting steel, accelerating the corrosion. It also reaches the wood framing behind the air gap. Prolonged water intrusion can rot sheathing and framing, and that turns a masonry repair into a carpentry repair too. I have opened walls where the jacking was the visible problem but the hidden problem was rotted sheathing behind it. The wall is a system, and a failure in one part stresses the others.

The good news about jacking is that it is visible. You do not need special equipment to see it. You need to know what to look for, and that is the subject of Chapter 6. But before we get there, there is a second way lintels fail that has nothing to do with rust. A lintel can be perfectly free of corrosion and still fail — if it is too small for the load it carries. That is Chapter 5.

## 5. Sag and Deflection

Not every failing lintel is rusted. Some fail because they were never big enough for the job in the first place. The steel is sound, the paint is fine, but the bar is bending under the weight — slowly, over years — and the brick is telling the story.

Engineers call the bending deflection. Homeowners call it sag. It is the same thing: the middle of the lintel drops lower than the ends, and everything sitting on the lintel drops with it.

To understand why a lintel sags, go back to the bridge image from Chapter 2. A steel bar spanning an opening is a bridge, and like any bridge it has a limit. Make the span longer, and the same bar bends more. Add more weight, and it bends more. Use a thinner bar, and it bends more. Lintel sizing is a balance of those three things: span, load, and steel size. Get the balance right and the lintel stays straight for the life of the house. Get it wrong and the middle sags.

In residential construction, the most common sagging lintel is over the garage door. The reasons are obvious once you think about it. The garage opening is the widest span in the house — often sixteen feet for a two-car garage. The brick above it may run a full story or more. And the lintel is frequently the same size angle iron used over the windows, which span three or four feet. A piece of steel that is perfectly adequate over a three-foot window can be badly undersized over a sixteen-foot garage door. It bends. Slowly. Year after year.

Sag shows up in the brick in a characteristic way. The courses above the opening follow the steel down — the middle of each course sits lower than the ends, so the brick lines curve. From across the street, a sagging garage lintel reads as a gentle frown in the brickwork. Up close, you can see the mortar joints opening at the ends of the span — the brick near the bearings gets pulled apart as the middle drops — and compressing in the middle. Sometimes you will see a crack that runs vertically at each end of the lintel, right where the steel meets the bearing brick. That crack says the lintel is moving at its supports.

There is a subtler version of this that shows up over windows. A window lintel that is slightly undersized will not produce a dramatic frown. It will produce a slow, quiet drop — an eighth of an inch here, a sixteenth there — and the signs

are small: a mortar joint above the window that is slightly wider in the middle than at the ends, a window that used to open smoothly and now sticks at the top, a hairline crack in the drywall above the window inside the house. Homeowners notice the sticking window and call a window company. The window company adjusts the window. The window sticks again six months later. Nobody looks at the steel above the opening, because nobody knows it is there.

Added weight is the other cause of sag, and it catches people by surprise. The lintel was sized for the wall as originally built. Then someone adds weight above it. The most common version: a second story or a room addition goes up, and the new brick bears on the existing wall, and the existing lintels suddenly carry more than they were sized for. Less common but real: heavy stone veneer gets applied over existing brick, or a homeowner stacks firewood or builds a planter against the wall above a basement window — small loads, but loads the lintel was not sized for. The rule is simple: the lintel carries what is above it, and if what is above it changes, the lintel's adequacy changes with it.

I should say a word about how much sag is acceptable, because steel does bend a little under load and a little bending is normal. Every beam deflects under load — that is physics, not failure. The question is how much. In practical terms, a lintel that has visibly curved the brick courses above it has deflected too much. A lintel whose sag you can see from the curb is well past the point where it should have been addressed. The brick is a sensitive indicator: it cracks and displaces long before the steel is in any danger of collapsing. You will see the warning in the masonry years before the steel itself is at risk. That is fortunate, because it gives you time.

But do not mistake time for safety. A sagging lintel is a lintel that is overloaded, and overloaded steel keeps bending. It does not reach a new equilibrium and stop. The bending is slow — creep, the gradual deformation of material under sustained load — but it continues as long as the load exceeds what the steel can comfortably carry. And as the lintel sags, the masonry arch above it — the natural arching that helps carry the wall's weight, which we discussed in Chapter 2 — breaks down. The mortar joints crack, the arch loses

its shape, and more of the load transfers onto the already-sagging steel. It is a slow feedback loop, and it runs in one direction.

There is a simple test you can do yourself to check for sag, and it requires nothing but a piece of string. Stand on a ladder safely positioned to the side of the opening — never stand on the top rung, and have someone foot the ladder — and stretch a mason's line or any taut string tightly across the face of the brick above the opening, from one end to the other, held against the wall at the same course height. On a healthy wall, the string will touch the brick evenly along its length. On a sagging wall, you will see a gap open between the string and the brick at the ends, with the brick dipping away in the middle — or the reverse, depending on how you hold it. The string does not lie. It gives you a straight reference against a wall that may not be straight, and even an eighth of an inch of dip becomes visible.

Do this test on your garage lintel. It is the one most likely to show something. If you find a dip, do not panic — measure it, photograph it, and repeat the test in six months. A dip that is not changing is a condition to watch. A dip that is growing is a condition to act on. Either way, you now have a baseline, and a mason you call will take your observation seriously, because you have done the same check he would do first.

One more sag-related detail worth knowing: deflection and cracking feed each other in a specific way at the bearings. As the middle of the lintel drops, the steel rotates slightly at each end — the ends tip upward as the middle goes down, like a seesaw. This rotation pries at the bearing brick, opening small cracks in the mortar right at the ends of the lintel. Those cracks admit water. The water reaches the bare steel ends. The ends rust. The rust expands in the bearing pocket, further loosening the seat. So a sagging lintel, left alone, tends to become a rusting lintel at its ends — and a rusting lintel is thinner and weaker, so it sags more. The two failure modes from these two chapters are not just neighbors. They are partners, and given enough time, each one invites the other to the job.

For example, imagine a homeowner with a two-car garage built in the late 1990s. The garage lintel is a standard angle iron, the same size as the ones over the windows. For the first ten years, everything looks fine. Around year twelve, the homeowner notices the garage door is sticking slightly at the top of

its travel. The door company adjusts the tracks. Around year fifteen, there is a visible curve in the brick above the garage door — subtle, but there. Around year eighteen, vertical cracks appear at both ends of the lintel, and the middle of the brickwork has dropped nearly half an inch. The steel was never going to be enough for that span. It just took eighteen years to say so.

The repair for a sagging lintel is the same as for a rusted one: replacement with properly sized steel. You cannot straighten a lintel that has taken a permanent set, and you cannot sister it or reinforce it in place in any way that a responsible mason would stand behind. The steel comes out, the opening gets a lintel sized for the actual span and the actual load, the brick goes back. The difference from a rust repair is that the sizing matters even more — the original failed because it was undersized, so the replacement has to be right. A mason who replaces a sagging garage lintel with the same size steel that failed is selling you the same problem on a delay.

This chapter and the last one describe the two great failure modes: rust jacking, which lifts and splits, and sag, which bends and drops. They can occur together — a rusted lintel is thinner and weaker, so it sags more easily — but they are different problems with the same solution. Now that you know how lintels fail, the next chapter teaches you to read the signs on your own home.

## 6. Reading the Warning Signs

You do not need to be a mason to spot a failing lintel. You need to know what to look at and what you are seeing. This chapter is a field guide. Walk around your house with it — or walk around in your mind — and check each opening. What you find will tell you whether your lintels are healthy, aging, or asking for help.

Start with the steel itself. Look at the painted face of each lintel. Healthy paint is smooth and adhered. Aging paint chalks — rub your finger across it and a powdery residue comes off. Failing paint bubbles, flakes, and peels, especially along the bottom edge and at the ends where the steel enters the brick. If you see bare steel, note its color: surface rust is orange-brown and powdery; advanced rust is dark, rough, and flaky, and the steel underneath is pitted. Pitting means the steel is losing thickness. If you can flake pieces of steel off with your fingernail, the section loss is serious.

Next, look for rust staining. Rust stains bleed downward from the lintel onto the window frame, the brick below, or the concrete. They are orange-brown streaks that do not wash off with rain. A rust stain means water is reaching the steel, the steel is corroding, and the corrosion products are being carried out by water. The stain is not the problem — it is the messenger. Do not shoot the messenger by painting over it. Read it.

Now look at the mortar joints above the opening. This is where jacking shows itself. You are looking for cracks in the mortar, and the pattern matters. A stair-step crack — one that climbs diagonally, stepping from joint to joint like a staircase — above a window or door is the classic sign of rust jacking. It means something below is pushing up. A horizontal crack running along a bed joint directly above the lintel can mean the same thing: the brick above the steel is being lifted off the brick below. Vertical cracks at the ends of the lintel, right where the steel bears on the brick, suggest movement at the bearings — either jacking pushing outward or sag pulling the ends.

Look at the soldier course if your home has one — the row of bricks standing on end above the opening. The soldier course sits directly on the lintel, so it shows lintel movement first and most clearly. A healthy soldier course is straight and plumb, every brick vertical and even. A jacking soldier course tilts outward at the bottom, pushed by the expanding rust, so the tops of the bricks lean into the wall. A sagging soldier course dips in the middle, following the bending steel. Either way, a soldier course that is not straight is telling you the lintel beneath it is not stable.

Step back and sight along the wall. Stand to the side of the opening and look along the face of the brick. You are checking for bowing — the brick bulging outward above or beside the opening. Bowing means the brick is being pushed out of plane, and near a lintel, the pusher is usually expanding rust. A slight bow is easy to miss head-on; sighting along the wall makes it obvious. While you are sighting, check the courses above the garage door for the frown — the gentle downward curve of sag.

Now check the operation of the doors and windows themselves. A window that used to slide freely and now sticks, a door that used to latch cleanly and now needs a shove, a garage door that binds at the top of its travel — these can all be symptoms of movement above the opening. The frame is being squeezed

or racked as the lintel moves. Not every sticking window is a lintel problem — houses settle, humidity swells wood, hardware wears — but a sticking window directly below a cracked mortar joint is a lintel problem until proven otherwise.

Go inside and look above the openings on the interior. Hairline cracks in the drywall above a window or door, running diagonally from the corners, can reflect movement in the wall. Interior cracks have many causes — settling, temperature, framing shrinkage — so treat them as a supporting clue, not a diagnosis. But if the interior crack sits directly above an exterior opening that shows stair-step cracking and rust staining, you are looking at one problem from two sides.

Pay special attention to the garage. The garage lintel is the longest, carries the most, and fails the most dramatically. Check it the way you checked the windows, and add one more test: stand inside the garage with the door closed and look at the top of the door frame. If you can see gaps between the frame and the brick, or daylight through cracks in the mortar above the door, the lintel has moved and the wall has opened. That is not a cosmetic issue. That is water and air entering the wall, and it needs a mason's eyes promptly.

A word on timing and urgency. Most lintel problems develop over years, and most can wait weeks or months for a scheduled repair without catastrophe. But some signs mean you should call sooner: brick that is visibly displaced or leaning, cracks wide enough to fit a finger, chunks of mortar or brick falling from above an opening, and any sign of water entering the wall in volume. Those say the wall's integrity is compromised now, not eventually. Everything else says: get it on the schedule, get a proper inspection, and do not let it ride another year.

When you do call, it helps to know what a good inspection looks like, so you can tell whether you are getting one. A proper lintel inspection is a ladder-up, hands-on examination — not a drive-by estimate from the curb. The mason should get close enough to touch the steel: probing the rust with a tool to gauge how deep it goes, checking whether the steel is pitted or flaking, looking at the paint failure pattern up close. He should sight along the courses above the opening for sag or lift. He should examine the mortar joints for the cracking patterns described in this chapter and note which ones are active — a

crack with clean, sharp edges and no dirt in it is recent; a crack filled with dust and cobwebs has been there a while. He should look at the bearing areas as closely as the wall allows, check the weep holes, and assess the flashing situation — or the absence of it.

The inspection should also cover the whole house, not just the opening you called about. As noted earlier, lintels on the same home tend to share a cause and a timeline. A mason who inspects one window and writes a bid without walking the rest of the elevations is giving you a partial diagnosis. The full-house check is how you learn whether you are facing one lintel or five, and that changes the economics of the job considerably — one mobilization for five lintels is far cheaper per opening than five separate visits.

Finally, expect the mason to tell you what he cannot see as well as what he can. The back side of the lintel, the full bearing seats, the condition of the steel inside the wall — these are hidden until the wall is opened. An honest mason will tell you the inspection is an assessment, not an X-ray, and that the final scope gets confirmed when the brick comes down. That honesty is a credential. The contractor who claims to know everything from the ground is the one to worry about.

What you should not do with this information is diagnose and price the job yourself. This chapter teaches you to recognize the signs so you can call early and ask good questions. It does not make you a mason. When you call, describe what you see — the stair-step crack above the north bedroom window, the rust stain on the garage lintel, the soldier course tilting out — and let the mason confirm it with a closer look. A good mason will put a ladder up, get close to the steel, probe the rust, check the bearings, and tell you what the repair involves. That inspection is the first step of Chapter 8.

One last note on this chapter: check every opening, not just the one that looks bad. Lintel problems on the same house tend to share a cause — the same builder, the same steel, the same missing flashing, the same years of weather. If one lintel is jacking, its neighbors are probably on the same timeline. A full-house check takes twenty minutes and tells you the scope of the work before a mason ever sets foot on your property. It is the highest-value twenty minutes in this book.

## 7. Why Paint and Caulk Aren't Repairs

Every mason has a version of this story. A homeowner calls about a rusted lintel. The mason arrives and finds fresh paint — a nice, thick, recent coat, neatly covering the steel face. Underneath the paint, the steel is flaking apart. The paint job cost the homeowner a weekend and forty dollars. It also cost them two years, because the fresh paint hid the rust while it kept growing, and by the time the bubbles came back, the jacking had cracked three more mortar joints.

I understand the impulse. Paint is cheap, fast, and satisfying. The lintel looks better the same afternoon. And there is a grain of truth in it: keeping paint intact on exposed steel is good maintenance, and Chapter 12 will tell you to do exactly that. But there is a hard line between maintenance and repair, and paint sits on the maintenance side. Once rust has started under the paint, repainting is not a repair. It is a cover-up, and cover-ups have consequences.

Let us be precise about why. Paint protects steel by sealing it — keeping water and oxygen away from the metal surface. That works when the surface is clean, sound steel. It does not work when the surface is already rusted, for three reasons.

First, paint does not bond to rust. It bonds to the loose, powdery surface of the corrosion, and that surface is already separating from the steel beneath. The new paint is adhered to something that is falling off. It is like wallpapering over crumbling plaster. It looks fine until the plaster lets go, and then the wallpaper goes with it.

Second, paint traps moisture. This is the cruel part. Rust needs water to grow, and a fresh coat of paint over rust seals water in as effectively as it seals water out. The moisture already in the rust layer, plus the moisture that wicks in from the unpainted back side of the lintel, stays trapped under the new film. The rust keeps feeding. In fact, it can grow faster under new paint than it did under old, failing paint, because the old paint at least breathed a little through its cracks.

Third, paint hides the evidence. This is the most expensive reason. The warning signs from Chapter 6 — the bubbling, the staining, the flaking — are how you know the steel is deteriorating. Fresh paint erases them. The

homeowner sees a clean lintel and stops worrying. The rust continues its work invisibly, jacking the brick, cracking the joints, and by the time the paint fails again — and it will, usually within a year or two — the damage has advanced a full stage. The homeowner paid for the privilege of not knowing.

Caulk has its own version of this problem. Caulk is a sealant, and sealants have a legitimate role around openings — sealing the joint between the window frame and the brick keeps bulk water out, and that is good. But caulk is routinely misused on lintel problems in two ways.

The first misuse is caulking over the symptoms. A homeowner sees a gap opening between the window frame and the brick — the gap caused by jacking — and fills it with caulk. The gap disappears. The jacking continues. Now water that used to drain out through the gap is trapped behind the caulk, and the trapped water accelerates the rust. The caulk did not fix the movement. It hid it and fed it.

The second misuse is caulking the weep holes. Weep holes are the small openings at the bottom of the wall, just above the lintel, that let water drain out from behind the brick. They are supposed to be open. They look like defects to a homeowner — little gaps in the mortar — and the instinct is to fill them. Filling them is one of the most damaging things you can do to a brick wall. The water that gets behind the brick — and it always gets behind the brick — has nowhere to go. It pools on the lintel. The steel sits in water. The rust accelerates. I have seen lintels fail years early for no reason other than caulked weep holes. If you take one practical rule from this chapter, take this one: never caulk a weep hole.

There is a third cosmetic trap worth naming, because it looks more legitimate than paint and fools more people: tuckpointing over the cracks. Tuckpointing — grinding out deteriorated mortar joints and packing in fresh mortar — is a real and valuable masonry repair. On a sound wall with weathered joints, it is exactly the right work. But when the cracks were caused by rust jacking or a sagging lintel, tuckpointing is paint in another form. The fresh mortar fills the stair-step cracks beautifully. The wall looks restored. And then the rust keeps expanding, or the steel keeps bending, and the new mortar cracks along the same lines — usually within a year or two, sometimes within months.

I have seen walls that were tuckpointed twice over the same jacking lintel, each time at real expense, each time with the cracks returning like clockwork. The homeowners were not foolish. They hired masons, the masons did neat work, and the work failed — because the work addressed the symptom. A cracked joint caused by a moving lintel is the wall's way of reporting movement. Filling the joint without stopping the movement is silencing the reporter. The report comes back, because the movement never stopped.

This does not mean tuckpointing is never appropriate around lintels. After a proper replacement — new steel, flashing, weeps, bearings rebuilt — the joints above the opening are sound, the movement is gone, and tuckpointing any remaining weathered joints in the area is good, lasting work. The sequence is what matters, and it is the same sequence as paint: structure first, cosmetics second. Tuckpoint before the steel is replaced, and you are decorating a moving wall. Tuckpoint after, and you are maintaining a stable one.

The same logic applies to the crack-fill products sold at every home center — the tubes of mortar-colored sealant marketed as masonry crack repair. On a hairline shrinkage crack in a sound wall, they are fine. On a stair-step crack above a window that is widening year over year, they are a delay, not a repair. The packaging does not distinguish between the two cases. You now can.

There is a broader principle underneath all of this, and it applies to every trade, not just masonry. Cosmetics and structure are different categories. Paint, caulk, and sealant are cosmetic and weatherproofing tools. They maintain sound materials. They do not restore failed ones. A rusted lintel is a failed material. No coating restores lost steel section. No sealant re-bonds a cracked mortar joint under load. The only repair for failed steel is new steel, installed correctly, with the water-management details — flashing, weeps, drainage — that keep the new steel from meeting the same fate.

This is also the chapter where I want to talk about the cheapest bid, because the cheapest bid is often a paint-and-caulk bid wearing a repair's clothes. A contractor who proposes to wire-brush your lintels and paint them, and calls it a lintel repair, is selling cosmetics. A contractor who proposes to caulk the cracks above your windows and calls it structural work is selling cosmetics. The price looks good because the work is not the work. Chapter 11 will go deeper into pricing, but the rule of thumb is this: if the bid does not include

removing steel, installing new steel, and addressing flashing and drainage, it is not a lintel repair. It is maintenance dressed up as repair, and it will need redoing — as a real repair — within a few years.

None of this means paint and caulk are useless. They are essential maintenance, applied at the right time to sound materials. Keep the paint intact on your lintels and you slow the rust dramatically — that is Chapter 12's advice, and I mean it. Caulk the joint between the trim and the brick where it has cracked, and you keep bulk water out of the wall — also Chapter 12. The distinction is timing and condition. On sound steel, paint is protection. On rusted steel, paint is a blindfold.

So when you see a rusted lintel, resist the paintbrush. Not forever — the new steel, once installed, should be painted and kept painted. But the sequence matters: steel first, paint second. Repair, then maintain. Never the reverse.

## **8. How a Proper Lintel Replacement Works**

This is the chapter contractors hope you never read, because it tells you exactly what the job involves — which means you will know if any of it gets skipped. A proper lintel replacement is a structural repair with a defined sequence. Every step has a reason. When a step is skipped, the reason it existed becomes the reason the repair fails early.

It starts with inspection and measurement. A mason puts a ladder up and gets close to the steel. He probes the rust — how deep does it go, how much section is left. He checks the mortar joints above the opening for the cracking patterns from Chapter 6. He looks at the bearing points, as much as can be seen, and he assesses how much brick is displaced — because that determines how much brick comes down. He measures the span, notes the stories above, and sizes the new steel for the actual load. He also looks at the big picture: the flashing situation, the weep holes, the condition of the neighboring lintels. The inspection ends with a scope — which lintels, how much brick, what size steel — and that scope is what the price is based on. Be wary of any bid written without a ladder going up.

Next comes temporary shoring. Before any steel comes out, the brick above the opening has to be supported. The mason installs temporary supports —

typically adjustable steel posts with lumber or steel beams — that carry the weight of the wall while the lintel is removed. This is not optional and it is not overkill. The moment the old lintel is cut out, the brick above has nothing holding it up except friction and the masonry arch, and neither is reliable once the joints are cracked. Shoring is what keeps the wall where it belongs during the repair. If a contractor proposes to swap a lintel without shoring, that is not a shortcut. That is a gamble with your wall.

With the wall supported, the old steel comes out. This is demolition work, careful demolition. The mason removes the brick that has to come out — the soldier course and the courses directly above the lintel, plus any displaced or cracked brick identified in the inspection — and sets it aside. Salvageable brick is cleaned and saved for reuse; matching existing brick is always better than introducing new brick, and we will talk about matching in Chapter 10. Then the old lintel is cut out, usually in pieces, and removed. What comes out is often shocking to the homeowner — steel that looked merely weathered from the ground reveals itself up close as flaking, thinned, expanded scrap. This is the moment most homeowners understand, finally, why paint was never going to fix it.

Now the opening is empty and the wall is on shoring, and the mason prepares the bearings. The brick at each end where the new lintel will sit gets inspected and repaired as needed. Remember from Chapter 2: the entire load of the wall above the opening concentrates at these two spots. The bearing brick must be solid. If it is cracked or deteriorated, it gets replaced or rebuilt. The new lintel gets its full bearing — typically around four inches of solid support at each end — on sound masonry. This is a detail you will never see once the job is done, and it is one of the most important details in the job.

Then the new steel goes in. It is sized for the span and the load — not copied from the failed lintel, which may have been undersized to begin with. It is corrosion-resistant: at minimum properly primed and painted, and better still galvanized or otherwise protected, because the replacement should outlast the original. The mason sets it level, checks the bearing at both ends, and makes sure it sits correctly in the wall.

Above the new steel goes the flashing. This is the step the cheapest bids skip, and it is the step that determines how long the repair lasts. Flashing is a water-

shedding layer — typically a flexible membrane or metal — installed above the lintel, sloped to direct water outward. Its job is to catch the water that penetrates the brick above and deliver it out over the face of the lintel instead of letting it pool on the back of the steel. Remember Chapter 3: the back of the lintel is where rust starts, because water pools there. Flashing is what keeps the back of the new lintel dry. A replacement without flashing is a new piece of steel installed into the same wet environment that killed the old one. It will last longer than the original — new steel, better paint — but it is living on borrowed time from day one.

With the flashing in place, the mason builds in the weep holes — the small drainage openings just above the lintel that let the collected water escape. Weeps are typically spaced along the lintel, formed by leaving out mortar in vertical joints or by installing small tubes. They must be open and clear. They must stay open — which is why Chapter 7's rule about never caulking them matters for the life of the wall.

Then the brick goes back. The mason relays the courses above the lintel — the soldier course first, then the field brick — on the new steel, working to the original lines. This is where craftsmanship shows. The courses must be level and straight, undoing whatever sag or jacking displaced them. The mortar joints must be uniform. And the mortar must match the existing wall in color and texture, which is genuinely difficult: mortar color depends on the sand, the cement, the proportions, the tooling, and the age. A good mason tests and adjusts the mix until the new work blends. A poor one uses gray mortar on a tan-mortar house and calls it done. Chapter 10 tells you how to judge the finished work.

Finally, the site gets cleaned and the new steel gets its protective coating — primed and painted, top and face, before the painters would call it finished. The shoring comes down only after the mortar has set enough to carry the wall. The mason does a final check: courses straight, joints clean and matched, flashing in place, weeps open, steel coated, site clean.

That is the complete sequence: inspect and measure, shore the wall, remove brick and old steel, prepare the bearings, install new sized steel, flash above it, build in weep holes, relay the brick, match the mortar, coat the steel, clean the

site. Eleven steps, each with a reason, each load-bearing in its own way — some literally.

When you get bids, ask the contractor to walk you through their sequence. You do not need to interrogate anyone. Just ask, in plain language: will you shore the wall? What size steel are you installing, and how did you size it? Are you installing flashing above the new lintel? Will there be weep holes? How will you match the mortar? The answers tell you everything. A contractor who describes this sequence is planning a real repair. A contractor who gets vague at the word flashing is planning to skip it. And now you know what that means.

## **9. The LintelLOCK System**

After fifty years of cutting failed steel out of brick walls, you develop opinions. Not theories — opinions earned the hard way, one wall at a time, in the Texas heat, with the evidence in your hands. You learn which details matter and which ones get skipped. You learn what a repair looks like five years later when it was done right, and what it looks like five years later when it was not. And eventually, you stop improvising and you build a system — a consistent way of doing the job that includes every detail the failures taught you, every time, on every wall.

That is what LintelLOCK is. It is my purpose-built approach to lintel replacement, developed from fifty years of field work. It is not a product you buy in a box. It is a way of doing the job — a complete sequence with fixed standards for the steel, the water management, and the finish — applied the same way on every lintel I replace.

The system starts where Chapter 8 starts: inspection and measurement. Every LintelLOCK job begins with a close, ladder-up inspection of the steel, the joints, the bearings, and the surrounding wall. The scope is written from what the wall actually shows, not from a price list. The new steel is sized for the actual span and the actual load above it — measured, not guessed, and never copied from the failed lintel, because the failed lintel may have been undersized from the day it was installed. Garage spans get garage-sized steel. Multi-story loads get steel sized for multi-story loads. This sounds obvious. It is the step that gets skipped most often in this trade.

The steel itself meets a fixed standard. Every replacement lintel in the LintelLOCK approach is corrosion-resistant — selected and finished to resist the humid Texas environment that destroyed the original. The original lintel on most homes was plain steel with a coat of paint, installed into a wall with no flashing, and it lasted twenty or thirty years before it became a problem. The replacement should do better than that, and the way it does better is in the material and the coating: steel chosen for corrosion resistance, properly prepared, primed, and coated before it goes into the wall — not painted as an afterthought after the brick is back.

But the steel is only half the system. The other half is water management, because as Chapter 3 showed, water is what kills lintels. Every LintelLOCK replacement includes correct flashing and drainage details above the new steel. The flashing is installed as a continuous water-shedding layer, sloped to move water outward, integrated with the wall so that water penetrating the brick above is caught and directed out over the face of the lintel. The weep holes are built in, open, and clear — the drainage path the original builder skipped. This is the detail that separates a replacement that lasts from a replacement that repeats. New steel in a dry environment lasts. New steel in the same wet environment that killed the old steel is on the same clock, just rewound.

The bearings get the same fixed-standard treatment. The masonry at each end of the new lintel is inspected and rebuilt where needed, so the steel sits on solid brick with full bearing at both ends. The load path from Chapter 2 — the weight funneling into those two small spots — only works if those spots are sound. A system that specifies the steel but ignores the bearings is not a system.

Then comes the finish, and the finish has a standard too: the brick is relayed to straight, level courses, and the mortar is matched to the existing wall in color and texture. This is craftsmanship, not just construction. A lintel replacement that leaves a visible patch — mismatched mortar, wavy courses, a scar across the wall — is a job half done. The wall should look like it was never opened. Homeowners sometimes tell me they cannot find where the work was done, and that is exactly the standard.

What LintelLOCK is not: it is not a shortcut, it is not a coating, it is not a way to avoid replacing steel. There is no version of this system that leaves failed steel in the wall. The failed steel comes out, every time. What the system adds is consistency — the assurance that the sizing, the corrosion resistance, the flashing, the drainage, the bearings, and the finish are all addressed to the same standard on every job, because every one of them is a lesson learned from a failure.

I developed this approach because I kept seeing the same preventable failures. The replacement without flashing, rusting again in twelve years. The undersized garage lintel, sagging again in ten. The mismatched mortar, announcing the repair to the whole street. The weeps caulked shut by a painter who did not know what they were. Each one was a job done incompletely — not dishonestly, in most cases, just incompletely, because no fixed standard required the missing piece. LintelLOCK is the fixed standard. It exists so that nothing load-bearing, nothing water-related, and nothing visible is left to chance or to the pressure of the lowest bid.

There is a question I get asked often enough to answer here: why does the system matter if any good mason already does these things? The answer is that "good mason" is doing a lot of work in that sentence. The trade has no universal standard for residential lintel replacement — no code section that says the flashing must go in, no inspector who checks the bearing seats on a repair job, no license that guarantees the mason sizes the steel instead of copying it. In the absence of a standard, the quality of the job depends entirely on the habits of whoever shows up. A system replaces habit with requirement. It means the flashing goes in because the system says it goes in, not because the mason felt like it that day. It means the steel gets sized because sizing is step two, not because the mason is unusually diligent. Homeowners cannot supervise the invisible steps. The system supervises them.

The other reason the system matters is time. Fifty years of field work does not just teach you what to do — it teaches you the order to do it in and the mistakes that happen when the order breaks down. Bearings get rebuilt before the steel goes in, not after. Flashing goes above the steel before the brick comes back, not squeezed in later. The steel gets coated before installation, when every surface is accessible, not touched up afterward when the back

side is unreachable. Sequence is part of the standard, because I have seen what happens when a crew installs the steel first and tries to work the flashing in around it. The system is the accumulated memory of every wall that taught me something, organized into a procedure that does not forget.

If you take nothing else from this chapter, take the checklist it implies. Whatever contractor you hire, whatever system they use, the job should include: steel sized for the actual span and load, corrosion-resistant material and coating, solid bearings on sound masonry, flashing above the new steel, open weep holes, brick relayed straight and level, and mortar matched to the wall. That is what a complete lintel replacement looks like. It is what I do, and now you know enough to make sure anyone you hire does it too.

## **10. Anatomy of a Good Lintel Job**

The crew has left. The scaffolding is down. The wall is yours again. Now what? How do you know the job was done right?

This chapter is your final inspection guide. You do not need to climb a ladder or know the trade. You need to stand in front of the wall and look at it the way a mason would — checking the visible evidence of the invisible work. A good lintel job leaves signatures. So does a bad one. Here is how to read them.

Start with the big picture: stand across the street, or across the yard, and look at the wall. The courses above the repaired opening should be straight and level. Sight along them. If the wall had a frown from sag or a lift from jacking before the repair, it should be gone — the relayed brick should run true with the rest of the wall. Any remaining curve, dip, or waviness in the courses above the opening means the brick was not properly reset. This is the first thing to check and the hardest to fix after the fact, so check it while the contractor is still engaged.

Walk closer and look at the mortar joints. They should be uniform in width — the bed joints (horizontal) and head joints (vertical) even and consistent, matching the rhythm of the original wall. The joints should be tooled to match the existing profile: if the original joints are concave (the most common), the new ones should be concave; if they are flush or raked, match that. Run your

eye along a new joint into the old wall. The transition should be hard to find. Ragged, smeared, or unevenly tooled joints are the mark of rushed work.

Now the critical test: mortar color match. This is where most repairs succeed or fail visually, and it is genuinely difficult, so judge it fairly — but judge it. Stand ten feet back in daylight. The repaired section should blend with the surrounding wall. A perfect invisible match is the goal; a close match that reads as the same wall is acceptable. What is not acceptable is a repair that announces itself: gray mortar patched into a tan-mortar wall, or new mortar so much darker or lighter that the repaired opening wears a frame. Mortar color comes from the sand, the cement, the mix proportions, and the age of the surrounding mortar. A careful mason tests the mix against the existing wall and adjusts. Ask about the match before the work starts — Chapter 8 gave you the question — and verify it after.

Look at the steel face. The new lintel should be primed and painted, full coverage, no bare spots, no drips, no rust bleeding through. Check the bottom edge and the ends where the steel enters the brick — the vulnerable spots from Chapter 3. The paint line should be clean where the steel meets the window frame. This is the maintenance surface you will be keeping up from now on (Chapter 12), and it should start its life in perfect condition.

Check the weep holes. They should be open — visible as small gaps in the mortar just above the lintel, spaced along its length. Make sure they are actually open and not filled with mortar droppings from the relay work. A weep hole choked with mortar is no better than a weep hole caulked shut. This is a thirty-second check that protects the entire repair. Do it.

Look at the flashing line if any of it is visible — sometimes a thin edge of flashing is visible just above the lintel, and that is fine. What you are really checking is the absence of problems: no gaps between the new brick and the window frame, no daylight visible through the joints, no loose or rocking bricks. Press gently on the relayed bricks. Nothing should move.

Check the soldier course if there is one. Every brick should be plumb and even, the tops aligned, the bottoms sitting flat on the lintel. The soldier course is the most visible part of the repair and the least forgiving of sloppy work. If it

is straight, the mason cared. If it tilts or steps, the mason did not reset it properly.

Now step back again and compare the repaired opening to its neighbors. The wall should read as one continuous surface. The eye should not catch on the repair. If you find yourself staring at one window because something looks off — the mortar is a shade wrong, the courses step slightly, the steel face sits proud of the brick — trust that instinct and raise it with the contractor. You are not being difficult. You are doing the final inspection the job deserves.

Check the site. A professional crew leaves the property clean: no mortar chunks in the flower beds, no brick fragments on the driveway, no steel offcuts in the grass, no stains on the concrete. The window below the repair should be clean — mortar and paint splatter on glass and frames is the signature of a crew that did not mask. Walk the perimeter of the work area. It should look like no one was there, except that the wall looks better.

Ask about the steel directly. You have the right to know what went into your wall. What size is the new lintel? What is it made of, and how is it protected against corrosion? These are not confrontational questions — any mason proud of his work will answer them readily, because the answers reflect well on him. Write the answers down and file them with your paperwork. If the contractor cannot tell you the size of the steel he installed, that is information in itself.

Ask about the flashing, too, while the job is fresh. Was flashing installed above the new lintel? What kind? This is the detail you cannot verify visually once the brick is back, so the contractor's word — given while the work is still his responsibility — is your record. A contractor who installed it will say so plainly. A contractor who skipped it will change the subject. You read Chapter 8. You know what the complete sequence looks like. Confirm it happened.

One more check, and it is the most important one because it covers the work you cannot see: ask for the rundown. A good contractor will tell you, without being asked, what was found and what was done — the condition of the old steel, the size of the new steel, whether flashing was installed, the state of the bearings. If you have to pull it out of them, pull it. You paid for steel, flashing, bearings, and drainage. Confirm that all four went into the wall. The visible

finish tells you about the craftsmanship. The rundown tells you about the structure. You need both.

Keep your paperwork. The bid, the scope, the final invoice, and any notes about the steel size and the work performed — file them with your house records. When you sell the home, the next owner will want to know the lintels were replaced and how. When a neighboring lintel needs work in five years, you will want to know exactly what was done to this one. Good records turn a repair into an asset.

A final thought on this chapter: the goal is not perfectionism. Brick is a hand-laid material, and a hand-laid repair will never be machine-perfect. Small variations are the nature of the work. What you are checking for is care — straight courses, matched mortar, clean joints, open weeps, coated steel, clean site. Care is visible. Its absence is visible too. After reading this book, you know what care looks like. Hold the work to it.

## 11. What It Costs and Why

Nobody likes talking about price, which is exactly why this chapter exists. A lintel replacement is a significant home repair, and you deserve to understand what drives the cost — so you can compare bids intelligently, recognize a bid that is too good to be true, and understand why the cheapest option usually costs more in the end.

Let me start with the honest framing: every wall is different, and any contractor who quotes you a firm price over the phone without seeing the wall is guessing. The variables are real and they move the price substantially. What follows is not a price list. It is the anatomy of a price — the factors that make one lintel job cost twice what another costs, and why.

The first driver is span length. A three-foot window lintel and a sixteen-foot garage lintel are different jobs. The longer the span, the larger the steel, the more brick above it, the more shoring required, and the longer the crew is on site. Garage lintels are the most expensive single openings on a typical home, for exactly the reasons Chapter 5 described: wide span, heavy load, big steel. When you compare bids, make sure each bid prices the same openings. A bid that looks cheap may simply be pricing fewer lintels.

The second driver is stories. A lintel under a single story of brick carries one story's weight. A lintel under two stories carries two. More weight means larger steel, heavier shoring, and more careful demolition — the brick above is under more load, so the temporary support has to be more robust. Second-story lintels also mean working at height: scaffolding or lifts instead of a ladder, slower production, more labor hours. Access equipment is a real line item. A mason working off a ladder moves faster than a mason working off pump jacks at eighteen feet.

The third driver is how much brick comes down and goes back. This is where early detection pays off, as Chapter 4 showed. A lintel caught before serious jacking might require removing only the soldier course and a few courses above — a day's work for the brick. A lintel with advanced jacking might require removing and rebuilding a large section of wall — multiple days, more material, more matching. The steel costs roughly the same either way. The brick is what scales. When a mason inspects and tells you the scope, the brick scope is the number that moves the price.

The fourth driver is access difficulty. A lintel over the front door with a clear driveway in front of it is straightforward: park the truck, set the ladder, go to work. A lintel over a second-story window behind the house, above a sloped yard, behind mature landscaping, with no way to get scaffolding in — that is a different job. Tight side yards, steep grades, delicate plantings that must be protected, interior access through finished rooms: all of it adds labor. Masons price the difficulty of getting to the work, not just the work itself.

The fifth driver is mortar matching. On some homes, the existing mortar is a standard mix that is easy to match. On others — older homes, homes with unusual sand, homes where the mortar has weathered to a distinctive tone — matching takes real effort: test batches, adjusted proportions, sometimes specialty sand. Difficult matching adds time and material cost. It is worth it — Chapter 10 showed why — but it is not free.

Now the part that matters most: why the cheapest bid usually skips the flashing. Go back to Chapter 8's sequence. The steps that protect the repair's lifespan — flashing above the new steel, proper weep holes, corrosion-resistant steel, rebuilt bearings — are also the steps that are invisible once the job is done. A contractor competing on price knows you cannot see whether

flashing was installed. The temptation is to skip it, use thinner or uncoated steel, leave the bearings as they are, and put the savings into a lower bid. The wall looks the same on day one. The difference shows up in year ten or twelve, when the unflashed replacement starts rusting on its back side and the whole cycle begins again.

This is the economics of the low bid: it is not cheaper because the contractor is more efficient. It is cheaper because something was left out. Sometimes what is left out is legitimate — a smaller scope, a simpler access, a straightforward match. But when two bids for the same scope differ dramatically, the difference is in the invisible steps. Ask both contractors the Chapter 8 questions: shoring, steel sizing, flashing, weeps, mortar match. The bid that answers all five with specifics is the bid you can trust. The bid that goes vague is telling you where the savings came from.

A word about how bids are structured. A proper lintel bid should be written, itemized by opening, and specific about scope: which lintels, how much brick, what size and type of steel, whether flashing and weeps are included, how the mortar will be matched, and what the site protection and cleanup include. A one-line bid — "replace lintels, \$X" — is not a bid. It is a number. You cannot compare it to anything, and you cannot hold anyone to it. Insist on the written scope. It protects both sides.

Should you get multiple bids? Yes — two or three, from masons who do this work regularly, not from general handymen. And when you compare them, compare scope to scope, not price to price. The right question is never "who is cheapest." It is "who is doing the complete job." A complete job done once is cheaper than a cheap job done twice. I have replaced too many ten-year-old replacement lintels — steel that was new a decade ago, installed without flashing, rusting again — to believe otherwise. The homeowner paid twice. The second payment was the expensive one, because now there is jacking damage on top of the steel.

Let me give you the red flags — the signs in a bid or a conversation that tell you to keep looking. A contractor who will not put the scope in writing is the first. A bid that prices "lintel work" as a single lump sum with no breakdown by opening is the second. A contractor who has never heard of flashing, or who tells you flashing is unnecessary on residential work, is the third — and

that one is disqualifying on its own, because it tells you the contractor does not understand why lintels rust. A contractor who proposes to do the work without shoring is the fourth. A price that is dramatically lower than the others — not ten percent, but forty or fifty — is the fifth; the gap has to come from somewhere, and it comes from the invisible steps.

On the positive side, here is what a trustworthy bid looks like. It lists each opening by location: "replace lintel over north bedroom window," "replace lintel over two-car garage door." For each, it describes the brick scope — how many courses come down, whether the brick is salvaged and reused. It specifies the new steel: size, type, and corrosion protection. It states plainly that flashing will be installed above the new steel and that weep holes will be provided. It describes the mortar matching approach. It includes site protection and cleanup. It gives a schedule: start date, expected duration. And it is signed. This is not an unusual or demanding standard. It is what a professional bid looks like in any trade, and any mason who does this work regularly can produce it without strain.

A related question homeowners ask: should the bid include a warranty, and what should it cover? A workmanship warranty on a lintel replacement should cover the installation — the steel, the flashing, the weeps, the relayed brick, the mortar — for a meaningful period, typically measured in years. Read what it actually covers and what it excludes. A warranty that covers "defects in workmanship" is standard. Be cautious of a warranty with so many exclusions that it covers nothing in practice. And understand what no warranty can cover: the rest of your house. Replacing the garage lintel does not warrant the window lintels. Each opening is its own job, its own steel, its own clock.

One last pricing thought: timing. Lintel work is not emergency work in most cases — Chapter 6 covered the exceptions — which means you can schedule it rather than rushing it. Scheduling lets you get proper bids, check the full house, and do all the lintels that need it in one mobilization. Doing three lintels in one visit is substantially cheaper per lintel than doing them one at a time across three years, because the crew, the equipment, and the setup are shared. If the inspection shows multiple lintels on the same timeline, doing them together is the economical move.

The price of a lintel replacement is the price of doing it right once. Understand the drivers, demand the scope in writing, ask the five questions, and choose the complete job. Your wall will carry the decision for decades.

## 12. Keeping Lintels Healthy

Everything in this book so far has been about failure and repair. This chapter is about the other path — the maintenance that keeps lintels healthy and pushes replacement decades into the future. None of it is complicated. All of it is the kind of small, regular attention that houses reward and neglect punishes.

Start with water, because water is the enemy. Everything you do to keep water away from your walls extends the life of your lintels.

Gutters first. Your gutters are the first line of defense for the entire wall, lintels included. Gutters that are clogged, sagging, or undersized dump water where it does not belong — down the face of the brick, across the lintels, into the mortar joints. Walk your gutters twice a year, in spring and fall. Clear the debris. Check that the downspouts are connected and discharging away from the foundation — not just dumping at the base of the wall, where the water splashes back onto the brick and saturates everything from the bottom up. Downspout extensions are cheap and they matter. If water pours off your roof and lands on the brick above your garage lintel every time it rains, that lintel is living a harder life than its identical twin on the dry side of the house.

Next, the grade. The ground around your house should slope away from the foundation. Where it does not — where mulch beds or settled soil have created low spots against the wall — water pools against the brick and wicks upward. Keep the grade pitched away, keep mulch below the weep holes (never bury them), and keep sprinklers aimed away from the wall. Irrigation systems are silent lintel killers: a sprinkler head that throws water against the brick every morning keeps the wall perpetually damp, and the lintels in that wall rust on an accelerated schedule. Walk your sprinkler zones. If water hits the house, adjust the heads.

Caulk has a legitimate maintenance role, used correctly. The joint between the window or door frame and the brick — the trim joint — opens and closes with

temperature and age. When it cracks open, bulk water enters. Recaulking that joint with a quality exterior sealant is proper maintenance. What you must not caulk, as Chapter 7 established: the weep holes, ever, and the cracks caused by jacking or movement, which are symptoms, not maintenance items. The rule is simple: caulk the trim joints to keep water out; never caulk the drainage paths that let water out.

Paint is your lintel's personal weatherproofing, and keeping it intact is the single highest-value maintenance item in this chapter. Inspect the painted face of each lintel once a year — spring is a good time, after the winter weather and before the summer heat. Look for the early stages of paint failure from Chapter 3: chalking, small bubbles, peeling at the bottom edge and the ends. When you find a spot, address it promptly: scrape the loose paint, clean the steel, spot-prime with a rust-inhibiting primer, and topcoat. This is maintenance on sound steel — exactly what paint is for. What you are preventing is the foothold: once rust gets under the paint film, as Chapter 7 showed, repainting stops being maintenance and starts being a cover-up. Catch it at the chalking stage and a touch-up takes twenty minutes. Catch it at the bubbling stage and you are already behind.

A note on paint selection: use a quality exterior paint rated for metal, over a proper metal primer. The primer is doing the real work — it is the layer that bonds to the steel and inhibits corrosion. Cheap paint over bare steel is barely better than no paint. And paint the whole face, edge to edge, including the bottom edge where water collects. The bottom edge is where paint fails first and where a little extra attention pays off most.

Keep the weep holes clear. This deserves repeating because it is so easy to get wrong. Weep holes are the small drainage openings above the lintel. They clog with mortar droppings, insect nests, mulch, and paint. Once a year, when you inspect the paint, check the weeps. Clear them gently — a thin wire or a careful blast from a garden hose, not a pressure washer. Never fill them, never caulk them, never let a painter spray over them. Open weeps are the difference between a wall that drains and a wall that soaks.

Do a periodic visual check of the whole system — the Chapter 6 walkaround, once a year. You are looking for change: a new crack, a new stain, a soldier course that was straight last year and is not quite straight now. Photograph

anything you find. A photo dated this year, compared to a photo dated last year, shows progression that the eye misses day to day. This is how you catch jacking in its early stage, when the repair is still a one-day steel replacement instead of a wall rebuild.

Trim the vegetation. Bushes and trees planted against the house hold moisture against the brick, block airflow that would dry the wall, and in the case of climbing plants, drive roots into mortar joints. Keep plantings a foot or more off the wall. Keep tree limbs from rubbing the brick and from dumping leaves into the gutters above the lintels. Airflow is a drying force, and a dry wall is a healthy wall.

Finally, respect the timeline. Even with perfect maintenance, lintels age. Steel in a wall is a consumable on a long clock — decades, not years, but not forever. If your home is thirty or forty years old and the lintels have never been replaced, have them inspected by a mason even if they look fine from the ground. The back side may be telling a different story than the face, and an inspection is cheap insurance. Maintenance extends the clock. It does not stop it.

It helps to put the maintenance on a seasonal rhythm, because Texas weather gives you natural checkpoints. In spring, after storm season has done its worst, walk the gutters: clear the debris, check for hail damage to the painted steel, and do your yearly lintel inspection — paint condition, weep holes, the Chapter 6 walkaround. Spring is also the time to adjust sprinklers, before the summer watering season begins and the system starts soaking the walls daily. In summer, the main job is observation: the heat will show you where paint is failing fastest, and the intense sun bakes problems to the surface. Touch up paint spots before fall. In fall, clear the gutters again before the leaves finish dropping, check the grade after the summer dry spell — expansive clay shrinks in drought and can open gaps against the foundation that change drainage — and re-caulk any trim joints that opened over the summer. In winter, North Texas gives you the freeze-thaw cycles that punish trapped water: any water sitting in a cracked joint or behind failing paint expands when it freezes and wedges the damage wider. Winter is the season that bills you for the maintenance you skipped in fall.

None of this is heroic. Gutters, grade, caulk, paint, weeps, a yearly walkaround — it is the ordinary stewardship of a house. But ordinary stewardship is what separates the homeowner who replaces lintels once, at the right time, from the homeowner who replaces them twice, the second time with brick damage. The steel above your windows and doors is doing its job every day. This chapter is how you return the favor.

## Conclusion

You now know more about lintels than most homeowners will ever know. Let me boil it down to what matters.

A lintel is a steel beam above every window, door, and garage opening in your brick home. It carries the brick above the opening, transferring the weight to the brick at each side. It is structural — not decorative, not optional.

Everything above the opening depends on it.

It fails in two ways. Rust eats it from the back side first, expanding as it corrodes, jacking the brick upward, cracking mortar joints in stair-step patterns, and eventually displacing whole courses. Or it sags under a load it was never sized for — most often over wide garage spans — bending slowly over the years, curving the brick courses, cracking the joints at the bearings. Both failures announce themselves in the masonry long before the steel is in danger, which gives you time — if you know what to look for.

The warning signs are visible to anyone who knows them: stair-step cracks above openings, rust stains bleeding down the wall, bubbling or peeling paint on the steel face, soldier courses tilting or dipping, bowing in the brick, doors and windows that start sticking. Walk your house once a year with Chapter 6 in mind. Photograph what you find. Call a mason when something changes — early, not eventually.

Paint and caulk are maintenance, not repair. They protect sound steel and seal sound joints. They do not restore rusted steel, re-bond cracked joints, or substitute for flashing and drainage. A fresh coat of paint over rust is the most expensive forty dollars in home maintenance, because it buys two years of not knowing.

A proper replacement follows a sequence: inspect and measure, shore the wall, remove the failed steel, rebuild the bearings, install new properly-sized corrosion-resistant steel, flash above it, build in open weep holes, relay the brick straight and level, match the mortar, coat the steel, clean the site. Every step has a reason. The flashing and drainage steps are the ones that determine whether the repair lasts decades or repeats in ten years — and they are the steps the cheapest bids skip, because you cannot see them once the wall is closed.

That is why I built the LintelLOCK system the way I did: steel sized for the actual span and load, corrosion-resistant materials, solid bearings, correct flashing and drainage on every job, and a finish — straight courses, matched mortar — that leaves the wall looking like it was never opened. It is the complete job, done the same way every time, because fifty years of field work taught me that the skipped step is always the one that fails.

The cost of a lintel job is driven by span, stories, brick scope, access, and matching — and by whether the bid includes the invisible steps. Compare scopes, not prices. Ask about shoring, steel sizing, flashing, weeps, and mortar match. Choose the complete job done once over the cheap job done twice.

And keep them healthy afterward: gutters clear and discharging away from the wall, grade sloped away, sprinklers off the brick, trim joints caulked, weep holes open, paint intact on the steel, vegetation back from the wall, and a yearly walkaround with your eyes open.

Lintels are structural. Catch problems early. Do it right once. That is the whole book in three sentences — and if you remember nothing else, remember those three.

Your home's brick walls have stood for decades, and with the steel above your openings properly maintained and properly repaired when the time comes, they will stand for decades more. The beam you never see will keep doing its quiet work. Now you know it is there. Take care of it.

## About the Author

Travis Nech is the owner of Champion Brick Repair in Dallas–Fort Worth, Texas. With 50 years of hands-on experience in brick and masonry work, he has replaced countless failing lintels across North Texas and developed the LintelLOCK system for doing the job right. He wrote this book so homeowners understand the steel holding up their walls and know what a proper repair looks like. Learn more at [championbrickrepair.com](http://championbrickrepair.com) or call (817) 900-6324.