

Radon rarely announces itself. No smell, no color, no irritation in the eyes. It just seeps through soil and concrete, collects in basements and crawlspaces, and quietly raises lung cancer risk over years. In the St. Louis region, I have seen homes test below 2 pCi/L right next door to houses that hit 15 or 20. The geology shifts across neighborhoods, and the age and construction style of local homes add another layer. That is why a well designed radon mitigation system is not a commodity. The right radon mitigation contractor can make a durable difference in how much risk your family carries and how a home lives day to day.

This guide is grounded in dozens of local installs, hundreds of follow up tests, and plenty of time in damp basements where you learn what actually works. If you are searching for Radon mitigation St Louis or Radon mitigation near me and trying to sort through options, here is how to tell the difference between a quick install and a thoughtful, code compliant, long running solution.

What the radon numbers mean and why St. Louis homes vary

The Environmental Protection Agency sets 4.0 pCi/L as the action level. That is not a safety line you cross and suddenly face danger, it is a policy line that says mitigation is strongly recommended at or above that number. The goal after mitigation is to reduce levels as low as reasonably achievable, often below 2.0 pCi/L in a typical single family home.

The greater St. Louis area sits across soils that can drive wildly different baseline levels. In parts of St. Louis County and St. Charles County, clay rich soils and finished basements with tight construction can trap radon. Many of the older [Radon mitigation st louis](#) brick houses in the city, especially those with limestone or rubble foundations, have more pathways for soil gas but also more natural leakage to the outdoors. That is why you can see a 1920s bungalow at 6.5 pCi/L while a 1998 slab on grade ranch two miles away sits at 1.8. Add finished basements, French drains, sump pits, and room additions on separate slabs, and you get a patchwork. Stl radon patterns do not follow simple rules.

What you control is testing and follow through. A good radon mitigation contractor begins with data, not guesses. Short term tests are useful for screening, especially during a real estate transaction, but long term or continuous monitors paint a better picture of daily swings due to weather and HVAC operation. When you see results bouncing above 4 pCi/L at night and dropping in the afternoon, that is a hint about stack effect and infiltration that will influence system design.

How a radon system actually reduces levels

Most successful residential solutions in our region use sub slab depressurization. The concept is straightforward, the execution takes judgment. A fan creates a slight vacuum beneath the slab or plastic membrane in a crawlspace, then vents soil gas outside where it quickly disperses. The details that separate an average radon system from a great one include:

- How the suction point is chosen and prepared. In slab homes, you core a clean 4 to 5 inch hole, remove fines and pea gravel as needed, and sometimes connect to existing drain tile. In basements with multiple pours or structural slabs, you may need more than one suction point to communicate across the footprint. In crawlspaces, a well sealed membrane with perimeter taping and proper seams is crucial. A leaky encapsulation is like leaving a window half open.
- Pipe routing and fan placement. The pipe run must maintain slope to return condensate to the slab, or include a condensate bypass if the route travels flat for a distance. The fan belongs outside conditioned space or in an attic or garage space sealed from living areas. I still see exterior fans tucked under bedroom windows, which creates noise complaints and violates clearance guidelines.
- Discharge height and clearance. EPA and common sense both call for vent discharge above the roofline, away from doors and windows. As a rule of thumb used by many pros, set the discharge at least 10 feet from any opening that is less than 2 feet below the discharge point. In tight urban lots with courtyards and dormers, creative routing is often needed. In historic districts, painted pipe and strategic placement can preserve curb appeal without compromising performance.
- Monitoring and follow up. The little U tube on the pipe is not a reassurance device, it is a pressure gauge. It should be installed where a homeowner will see it. A good contractor will include post mitigation testing in the scope, not as an upsell. When a system is tuned well, the post test matches the initial goal set during design.

I have never seen a one size fits all blueprint succeed across St. Louis housing stock. System sizing, suction point count, and fan selection get adjusted to the house in front of you.

The traits of a skilled radon mitigation contractor

Credentials set a baseline, but they are not the finish line. In residential work, look for certification through NRPP or NRSB. Ask about experience with your specific foundation type, and push for references more than a year old. The glossy photos of clean white pipe are nice, but the question is, did the home still test low 12 months later after a wet spring and a cold snap.

A reliable contractor makes the job legible to you. They explain why a suction point goes at one end of the basement instead of in the middle. They show where the discharge will sit relative to a child's bedroom window and your neighbor's deck. They walk the condensate path and talk about freeze potential on a north face during a January week with highs in the teens. If they treat those details as nitpicks, keep interviewing.

Here is a tight checklist you can use while vetting companies, especially if your search started with Radon mitigation contractor or Radon mitigation near me and you are sorting through marketing claims.

- Certification and insurance: NRPP or NRSB certified, with proof of liability insurance and workers' comp.
- Local familiarity: recent installs in St. Louis city or county, not just statewide. Ask about code interactions in your municipality.
- Diagnostic plan: includes communication testing, pressure field extension, or at least a clear method to verify sub slab reach.
- Clear scope and drawing: a one page sketch showing suction points, pipe runs, fan location, and discharge height is standard.
- Post test and warranty: written post mitigation test included, fan warranty spelled out, workmanship warranty for at least 3 to 5 years.

St. Louis housing quirks that affect system design

City homes built before 1940 often sit on limestone or rubble foundations with partial height basements and crawlspace wings. Additions are common, and you sometimes find two or three slab elevations connected by narrow openings. In University City and Maplewood, I have crawled through knee walls to reach a tiny storage slab that turned out to be the main soil gas entry. In Soulard, finished basements under rowhouses share party walls and odd ventilation paths. Out in O'Fallon and Wentzville, newer slab on grade homes with integral garage slabs present clean cores but demand careful routing to reach the roofline without harming curb appeal.

Soils vary too. Our region's expansive clay can lock in sub slab pressure or, after a soaking rain, create high moisture that feeds condensate in pipes. Fans sized too small will not establish a broad pressure field. Fans sized too large can pull moisture and fines, causing noise, clogged filters if installed, or even sump pit gurgling. I prefer to start with a mid range fan on a well prepared suction pit, then measure and step up only if needed. Over the last few years, I have reached post mitigation targets in more than 80 percent of homes with a single suction point and a mid curve <https://sites.google.com/view/radon-mitigation-st-louis/contact-us> fan when the suction pit is properly excavated 15 to 20 gallons of material and the pipe run is smooth.

Crawlspaces require a different touch. A casual plastic sheet with sandbags leaks like a sieve. In humid St. Louis summers, a poorly sealed crawl membrane can sweat and grow mold. A good encapsulation uses reinforced poly with taped seams, sealed edges at the wall, and a rigid port for the radon suction connection. If the crawlspace communicates freely with a basement, you might need a small transfer duct under the sill to balance pressures.

Drain tile is common in finished basements. Tying into a continuous perimeter drain can deliver excellent pressure field extension, but not every drain is continuous. I have opened sumps to find drain tile entering from only one direction. That is a hint you will need an additional suction point or a stronger fan to reach the far side. Sump lids must be gasketed and clear, with pass throughs for pump lines sealed with grommets. If you hear a sump lid vibrate after install, your system is choked or the lid is not rigid enough.

What a thoughtful design looks like

Before anyone drills, a quick diagnostic tells you a lot. A contractor may place a hose or shop vacuum in the proposed suction hole and use a micromanometer or smoke puffer to see where the pressure field reaches. Even a simple stick of incense works as a quick check at floor cracks 20 or 30 feet away. If smoke moves into a crack with the vac running, the field is good. If it does not, you adjust the plan. In older basements with thick slabs or compacted base material, a second suction point is cheaper than oversizing the fan and living with noise and energy use.

Pipe routing should show respect for the home. White PVC against a dark brick front looks like a bandage. Through a garage and up the rear gable is almost always better if code allows. Wherever the pipe runs inside, maintain the upward pitch. A flat horizontal run collects water, then gurgles in cold weather when the line freezes. Condensate drains are small details that save callbacks.

Discharge placement follows function and sightlines. Above the eave line, not under a soffit vent that recirculates into an attic. A discharge two feet above a nearby operable window that sits within ten feet is a risk, even if local code language is thin on specifics. Pay attention to neighbors too. On narrow city lots, venting onto a neighbor's second story window will not earn you any favors.

Electrical work should be neat and code compliant. The fan needs a disconnect and a circuit that stays on. In basements where outlets are scarce, expect a new line from the panel or a hardwired connection with a switch. Outdoor fans deserve a weather rated box and sealant. A GFCI is common at an outlet, but hardwired fans follow local electrical code and inspector preference.

A manometer belongs where you can see it as you walk to the laundry or the storage shelves. The reading itself is relative - you are looking for a consistent difference that proves the fan is maintaining pressure. If the liquid levels match one day, the system is off or a line has opened.

Cost, timeline, and what is normal in the St. Louis market

For a straightforward sub slab depressurization system in a single family home, a typical price range in the St. Louis area falls between 1,200 and 2,500 dollars. The lower end might be a single suction point with an easy pipe run to an exterior fan and short vertical rise. The higher end covers multiple suction points, crawlspace encapsulation, long attic runs, or a historic district that demands tucked away routes. Multi family and commercial work follow a different scale. A properly sealed crawlspace can add 800 to 2,000 dollars depending on size and access. Drain tile connections and sump lid fabrication are usually modest adds, but the quality of the lid matters more than its material.

Most residential installs take one working day, often six to eight hours. If you are coordinating with a sale, many radon contractors can meet a 7 to 10 day inspection window. Post mitigation testing should start 24 hours after the system runs continuously. A short term test over 48 hours is common for real estate timelines, followed by a longer test for peace of mind once you move in.

Fan warranties vary by brand, usually 5 years. In my records, fans tend to last 7 to 10 years in our climate, shorter if they sit exposed on a hot, unshaded south wall that bakes in July, or on a north wall where ice forms on the discharge for days in January. A workmanship warranty of 3 to 5 years is reasonable for penetrations, piping, and sealing. If you see "lifetime" with lots of fine print, ask what actually happens when a joint leaks five winters from now.

When you search for St louis radon services online, you will see a wide spread of pricing. The cheapest bid often buries the fan behind a bush and points the discharge under an eave. Saving a few hundred dollars on day one can cost you in callbacks or future rework when you go to sell the home and the buyer's inspector flags the system.

What happens on installation day

Clear expectations help. If you have a finished basement, crews will protect floors and furniture, but make space where the suction point will go and cover items you care about. Expect the following sequence, which fits most single family installs.

- Confirm the plan with you on site, mark the suction location, and review pipe and discharge routes.
- Core the slab, excavate the suction pit, and drill test holes if needed to confirm communication.
- Run PVC, seal slab penetrations and floor cracks near the suction point, mount the fan, and connect electrical.
- Mount the manometer in a visible spot and label the system with contact information and a simple operating guide.
- Start the fan, check pressures and for noise or condensate issues, then place or schedule a post mitigation test.

In crawlspace projects, you will see more time spent on membrane prep - cleaning edges, scraping, and taping seams. That is where performance is won or lost.

Testing and documentation you should expect

A professional radon mitigation contractor includes post mitigation testing as part of the job. Ideally, they leave a continuous radon monitor for 48 hours to capture hourly readings. This gives you a simple graph that shows how levels

respond to fan operation and daily cycles. Charcoal tests are acceptable when continuous monitors are not available, but ask to see the chain of custody and lab used. In either case, ask for a report that includes your system's serial number or at least a photo of the installed system and the manometer reading at handoff.

Keep your pre and post test reports with closing documents. When you sell, buyers appreciate a traceable record instead of a line on a disclosure saying "mitigated in 2021." If your search for Radon mitigation system details started with friends telling you to just get it done, take the extra half hour to assemble a simple folder - it will pay off when questions come up later.

Red flags and quiet signals of quality

Price alone tells you very little. I look for small signals. A contractor who brings a vacuum and incense to test pressure field extension is thinking about performance, not just getting out by 3 p.m. A clean, labeled disconnect near the fan shows respect for safety and serviceability. A discharge that clears the roofline by a fair margin rather than by an inch or two shows they are building to a standard, not just to pass a quick glance.

Red flags include a discharge under an eave or within a few feet of a window. A fan bolted to a bedroom wall. A sump lid with duct tape patches. No manometer, or a manometer hidden behind shelving. A proposal that promises sub 1.0 pCi/L without diagnostics. Claims that sealing alone will solve a high reading, especially in a finished basement. Sealing helps, but it is not a standalone solution when numbers are well above 4.0.

Real homes, real trade offs

A Clayton two story with a finished basement and a drain tile system tested at 8.7 pCi/L in winter, 3.9 in late spring. The owners wanted the exterior pipe concealed. We routed through the garage and up through a rear attic chase, which extended the run by about 20 feet. That added static pressure and called for a slightly larger fan. Noise in the bedroom below was a concern, so we hung the pipe with isolation clamps and set the fan in the attic on vibration pads. Post test came back at 1.7. The extra time and materials to keep the system invisible added about 15 percent to the cost, a decision the owners were comfortable with.

A University City bungalow with a partial crawl and a slab addition bounced between 5 and 11 pCi/L. The initial plan called for a single suction point in the basement slab. Diagnostics showed weak communication to the slab under the addition. Instead of upsizing the fan, we added a small transfer duct under the sill plate and a taped membrane in the crawl. Two modest moves brought the whole home to 2.2 pCi/L on a 48 hour test during a cold spell.



A slab on grade ranch in O'Fallon came in at 6.1. The easiest pipe route would have put the exterior fan on the south side next to a brick patio where the family hosts summer dinners. We chose the north gable to keep noise off the patio, then added a condensate drain to deal with winter icing. The fan life will likely shorten a bit due to cold exposure, but the family valued peace on the patio more. That is a reasonable trade as long as it is discussed and documented.

Maintenance, monitoring, and how to live with a radon system

A radon system is not set and forget, but it is close. Glance at the manometer once a month. The liquid should show a split - if it reads the same on both sides, the fan is off or a line is open. Listen for new noises in winter. Gurgling suggests condensate pooling. A good contractor will have sloped the line correctly, but ice storms and clogs happen. Keep the discharge clear of leaf piles and nests.

Fans pull a modest amount of electricity, often 50 to 100 watts, similar to a couple of incandescent bulbs. That adds roughly 5 to 10 dollars a month, depending on your rate and fan size. If you see an unusual bump in your bill, make sure the installer did not wire the fan to a shared circuit that now runs 24 hours for other loads. I have found more than one bathroom fan that started running constantly after a radon install because of a careless tie in.

Retest every two to three years, and after major renovations that alter ventilation or slab areas. If you finish a basement that was previously open, or cut and patch floors for plumbing, retest. If you add a new sump or a room addition on a slab, call your contractor to review the system plan.

What changes for multi family or commercial properties

Apartments, condos, and schools call for larger designs and more measurement. A single fan and a single suction point will not carry a three story building. You will see multiple risers, roof fans, and system balancing. Baseline testing needs to cover representative units on each level and each stack. St louis radon in multi family buildings often reveals one wing with issues and another wing within target. The design should match that reality rather than painting the entire structure with the same brush.

Documentation matters more too. Expect a mitigation plan stamped by a qualified professional if required by the jurisdiction, clear labeling of each riser, and an operations and maintenance manual. If a property manager is searching for Radon mitigation St Louis providers, ask about portfolio work and reporting, not just single family experience.

Why local experience pays off

St. Louis is not a monolith. Homes in Ballwin do not behave like homes in Benton Park. The best radon mitigation contractor for you is the one who reads your slab, your soils, and your goals. They know the municipalities, from permit quirks in the city to HOA rules in the suburbs. They can tell you why a fan on the north wall of a Webster Groves cottage merits a condensate trap, and why an attic run in a Shaw Victorian is worth the extra labor to keep the exterior clean.

If you are mid search with results for Stl radon or staring at three similar looking proposals, call each company and ask them to talk you through the suction point, the pipe route, and the discharge. Ask where the condensate will go, how they tested pressure field extension, and what post testing they include. The one who gives you specific, local answers is usually the one who will build you a radon system that hums along quietly for years, keeps your numbers low, and respects the way your home looks and feels. That is what good radon mitigation in St. Louis should deliver.

Air Sense Environmental – Radon Mitigation & Testing

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1) Semantic Triples

<https://www.airsenseenvironmental.com/>

Air Sense Environmental is a trusted indoor air quality specialist serving Edwardsville, IL and the surrounding Metro East region.

Air Sense Environmental provides reliable radon testing, radon mitigation system installation, and crawl space encapsulation services tailored to protect residential indoor environments.

Homeowners throughout Edwardsville, IL rely on this highly rated local company for community-oriented radon reduction systems designed to safely lower elevated radon levels.

To schedule radon testing or mitigation service, call [\(618\) 556-4774](tel:6185564774) or visit <https://www.airsenseenvironmental.com/> to speak with a trusted local specialist.

View the business location and directions on Google Maps: <https://maps.app.goo.gl/XTPhHjJpogDFN9va8> and contact Air Sense Environmental for customer-focused indoor air solutions.

Popular Questions About Air Sense Environmental – Radon Mitigation & Testing

What services does Air Sense Environmental provide?

Air Sense Environmental provides professional radon testing, radon mitigation system installation, indoor air quality solutions, and crawl space encapsulation services in Edwardsville, Illinois and surrounding areas.

Why is radon testing important in Illinois homes?

Radon is an odorless and invisible radioactive gas that can accumulate indoors. Testing is the only way to determine radon levels and protect your household from long-term exposure risks.

How long does a professional radon test take?

Professional radon testing typically runs for a minimum of 48 hours using continuous monitoring equipment to ensure accurate results.

What is a radon mitigation system?

A radon mitigation system is a professionally installed ventilation system that reduces indoor radon levels by safely venting the gas outside the home.

How do I contact Air Sense Environmental?

You can call [\(618\) 556-4774](tel:6185564774), visit <https://www.airsenseenvironmental.com/>, or view directions at <https://maps.app.goo.gl/XTPhHjJpogDFN9va8> to schedule service.

Landmarks Near Edwardsville, IL

Southern Illinois University Edwardsville (SIUE)

A major public university campus that serves as a cultural and educational hub for the Edwardsville community.

The Wildey Theatre

A historic downtown venue hosting concerts, films, and live entertainment throughout the year.

Watershed Nature Center

A scenic preserve offering walking trails, environmental education, and family-friendly outdoor experiences.

Edwardsville City Park

A popular local park featuring walking paths, sports facilities, and community events.

Madison County Transit Trails

An extensive regional trail system ideal for biking and walking across the Metro East area.

If you live near these Edwardsville landmarks and need professional radon testing or mitigation, contact Air Sense Environmental at [\(618\) 556-4774](tel:6185564774) or visit <https://www.airsenseenvironmental.com/>.