

# PACIFIC *Craftsman*



## STRUCTURAL REPAIR SERVICES

# Complex Structural Repairs, Done Right

*Restoring Strength • Preserving Character • Protecting Your Investment*

Expanded site evaluation and professional coordination guide



- WHEN YOUR HOME NEEDS MORE THAN A HANDYMAN

## Complex problems demand real structural experience.

Every home tells a story - and over time, that story can include sagging floors, cracked foundations, water-damaged framing, settlement, drainage failure, or movement that throws doors and windows out of square.

These are not just cosmetic problems. They are clues. A crack may begin with a framing issue, but it may also be the visible result of water intrusion, poor drainage, inadequate bearing, soil settlement, slope movement, or a failed connection hidden behind finishes.

Pacific Craftsman specializes in the repairs other contractors often avoid. We focus on diagnosing the true cause first, then coordinating the correct plan, engineering, permits, shoring, sequencing, and craftsmanship needed to make the repair durable.



### - CORE PROMISE

*Our goal is not to hide the symptom. Our goal is to identify the cause, protect the structure, and complete a repair that can be documented, inspected, and trusted.*

## Repairs that protect the structure - not just the surface.

A structural repair is only successful when the damaged member, the load path, the moisture source, the soil conditions, and the final finish all work together. The sections below describe the type of repair work Pacific Craftsman can coordinate and execute.

### Foundation Repair & Stabilization

Foundation problems can come from soil settlement, hillside movement, frost, water pressure, inadequate bearing, poor compaction, or a drainage system that has failed over time.

- Foundation crack evaluation, epoxy or polyurethane injection, and reinforcement where appropriate
- Underpinning, pier systems, post-and-beam corrections, and foundation leveling strategies
- Sill plate, cripple wall, hold-down, anchor-bolt, and shear-wall improvements when needed
- Drainage correction and grading improvements to reduce the chance of recurring movement



### Framing & Load-Bearing Repairs

Framing repairs require a clear understanding of how weight moves through the home, from roof loads to walls, beams, posts, floors, and foundations.

- Sistering or replacing damaged floor joists, rafters, studs, posts, headers, and beams
- Temporary shoring plans to support occupied homes while damaged members are replaced
- Load-bearing wall modifications, beam installation, point-load transfer, and post replacement
- Correction of sagging floors, deflected rooflines, compromised connections, and improper past repairs

# Hidden damage often extends beyond the first visible problem.

## Rot, Water & Pest Damage Restoration

Dry rot, wet rot, termite damage, and carpenter-ant damage are rarely isolated to the first piece of damaged wood you can see. A proper repair opens enough of the structure to confirm the full extent of damage.

- Remove damaged materials back to solid, sound framing instead of patching over weakened areas
- Repair framing behind siding, decks, flashing, roof-to-wall intersections, and inside wall cavities
- Trace moisture back to its source, including roof runoff, failed flashing, poor grading, plumbing leaks, or trapped condensation
- Replace structural members with correct fasteners, connectors, bearing, and code-compliant detailing



## Decks, Porches, Roofs & Exterior Structures

Exterior structures are exposed to water, snow, wind, and movement. Repairs must address both the visible structure and the attachment points that keep the structure safe.

- Structural deck rebuilds, ledger-board replacement, flashing corrections, and cantilever repairs
- Porch, balcony, stair, and railing reconstruction with code-compliant connections
- Rafter, truss, ridge-beam, and roofline repairs after settlement, snow load, fire, or storm damage
- Post, footing, and pier replacement where decks or porches have settled, leaned, or rotted

### - AVOID PAYING TWICE

*Repairing the wood without correcting the water, drainage, bearing, or soil problem is a repair you may end up paying for twice.*

# What we document before anyone starts prescribing repairs.

The first site visit should create a practical record of the property, the visible symptoms, and the likely professional disciplines needed. This helps avoid guessing, over-scoping, or missing the issue that caused the movement in the first place.

## 1. Structure and Symptoms

What the building is telling us.

- Crack locations, direction, width, and whether cracks are active or old
- Sloping floors, sticking doors, sagging rooflines, uneven decks, and out-of-plumb walls
- Visible rot, insect damage, failed connections, or compromised bearing points
- Crawlspace, attic, basement, deck, and exterior observations tied back to the same load path

## 2. Site and Water Conditions

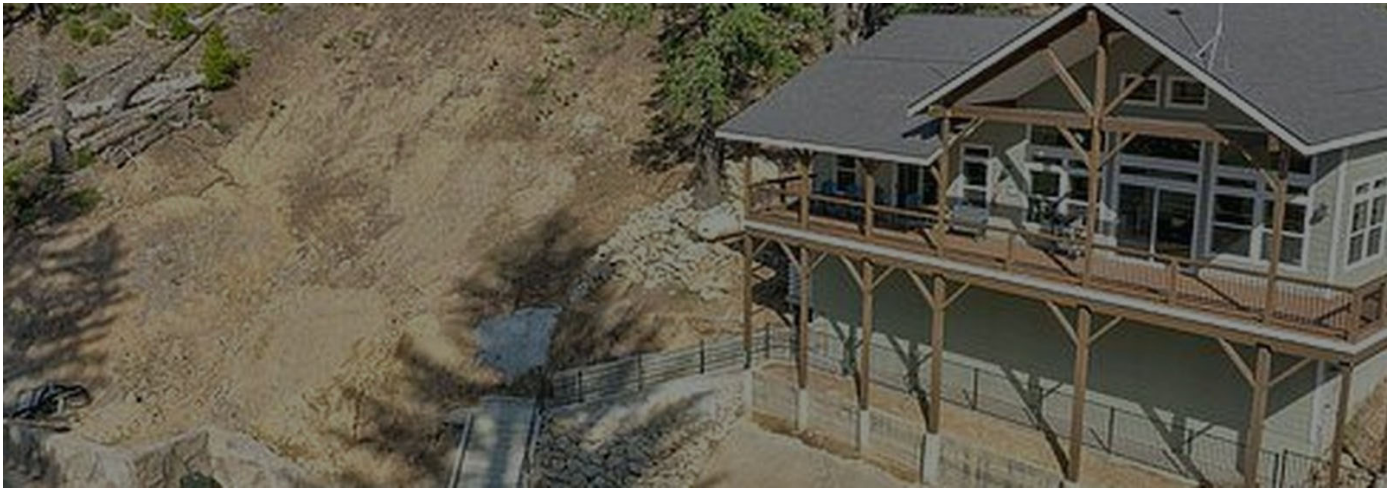
What the ground and drainage are telling us.

- Downspout discharge points, roof runoff, surface grading, standing water, and erosion
- Retaining walls, slope movement, exposed footings, settlement near patios and walkways
- Evidence of fill, poorly compacted soils, steep cuts, slides, or unmanaged hillside drainage
- Utility, septic, access, and staging constraints that may affect repair cost and sequencing

## Deliverables From a Simple Evaluation

The goal is to turn uncertainty into a clear next step.

- A written summary of observed conditions and likely contributing causes
- Photographs and notes organized by area of concern
- Recommended specialists for the next site meeting
- Preliminary repair approach, order-of-magnitude cost ranges where possible, and items requiring engineering
- A list of documents to gather, including prior inspection notes, permits, surveys, soils reports, drainage plans, and repair history



- LOCAL SPOTLIGHT

## Older Waterfront & Hillside Homes in Kootenai County

Homes overlooking Lake Coeur d'Alene, the Spokane River, Hayden Lake, and North Idaho's other lakes and waterways can be spectacular. They can also be more complex to evaluate because the house, hillside, drainage, retaining walls, access, and soil conditions all interact.

Many homes built from the 1970s through the early 2000s were built before today's geotechnical review, drainage detailing, and hillside construction standards became more common. Some performed well for decades; others are now showing signs that the original site work, fill, drainage, or foundation system was not adequate for the conditions.

### **A Home Is Only as Strong as the Ground Beneath It**

A foundation transfers the home's weight into the soil. If the soil was not properly compacted, if imported fill was placed on a slope without proper engineering, or if water has been allowed to move through the bearing soils, settlement can continue for years. Repairing the house without understanding the ground can leave the original cause unresolved.

- NORTH IDAHO SITE REALITY

*Hillside, waterfront, and view lots often require careful geotechnical evaluation, engineered foundations, civil drainage review, and proper construction sequencing.*

- REPAIR EXAMPLE

# What Structural and Site Repairs Can Look Like

The photos below show how challenging hillside and structural issues can be transformed through thoughtful repairs, drainage management, access improvements, and exterior site work.

BEFORE

AFTER



Before: exposed supports, unmanaged slope conditions, limited usable yard space, and an unfinished exterior presentation.

After: improved appearance, retaining-wall definition, usable landscape areas, and a more complete exterior presentation.

- IMPORTANT NOTE

*Photos can illustrate what a repair may look like, but they do not prove the cause or scope of structural movement. The correct scope comes from on-site evaluation, measurements, and the right specialists.*

- REAL-WORLD EXAMPLE

## Settlement From Improperly Compacted Fill

The homes shown below illustrate conditions that can occur when a house is built on a steep hillside above the water. Several visible conditions can suggest the possibility of foundation or site movement, especially when they appear together.



Visible conditions may include a settled front entry slab, soil erosion, loose fill around the foundation, steep slope exposure, and structural transitions that no longer appear to be moving together.

### What Needs to Be Determined

- Is the structure moving, or are the cracks and settlement older and stable?
- Is movement caused by soil settlement, drainage, inadequate bearing, slope movement, or a framing problem?
- What temporary shoring or access is needed before any invasive investigation begins?
- Which repairs require stamped engineering, permits, inspections, or specialty contractors?

- EXTERIOR AND INTERIOR WARNING SIGNS

## Settlement, loose fill, drainage, and cracking should be evaluated together.



Inside the home, cracking can appear where vaulted ceilings meet walls and around structural transitions. Drywall cracks alone do not prove structural failure, but when they occur together with exterior settlement and site movement, they are worth investigating.



### Poor Drainage Accelerates Structural Problems

Water is one of the biggest enemies of any foundation. When water collects around the foundation, it can saturate supporting soils, wash away fine particles, reduce bearing capacity, increase hydrostatic pressure, push retaining walls, and trigger slope movement.

#### - WHEN WATER COLLECTS AROUND A FOUNDATION

*The repair plan should address the source of water, the path water takes across the property, and the place water is safely discharged - not just the damaged wood or concrete.*

# Your home may need a structural evaluation.

Structural movement often appears inside before it becomes obvious outside, and many homeowners focus on cracks in the house while overlooking what is happening in the yard. Watch both the building and the site.



## Inside the Home

- Cracks extending diagonally from doors or windows
- Ceiling cracks at vaulted intersections; drywall joints separating
- Doors and windows that stick, rub, or won't latch
- Sloping, bouncy, soft, or uneven floors; cracked tile
- Gaps beneath baseboards or between walls, floors, and ceilings
- Fireplace separation from surrounding walls
- Musty crawlspace odors or fungal growth on framing
- Cracks that worsen after wet seasons

## Outside & Around the Site

- Exterior foundation cracks wider than 1/4 inch
- A sagging roofline or ridge
- Standing water near the foundation; wet crawlspaces or basement moisture
- Downspouts discharging next to the home
- Soil pulling away from the foundation; depressions in the yard
- Exposed footings; erosion beneath decks and stairs
- Leaning or tilting retaining walls and fences
- Cracked walkways and sunken patios; posts or piers that lean, sink, or rot

If you are seeing any of these, do not wait. Structural problems rarely fix themselves. Early evaluation is usually the least expensive way to determine whether movement is cosmetic, active, or structural.

## Which specialists may be needed - and what each one does.

Complex repairs often require more than one professional. Pacific Craftsman can coordinate the right team so the owner is not left trying to manage separate opinions, overlapping scopes, or unclear responsibility.

### Structural Engineer

Designs and verifies the building repair.

- Evaluates beams, posts, joists, rafters, foundations, retaining elements, and load paths
- Determines whether temporary shoring is needed during demolition or repair
- Produces stamped repair details when required for permits, inspections, insurance, or resale

### Geotechnical Engineer

Evaluates the soil and slope supporting the structure.

- Reviews bearing soils, fill, compaction, groundwater, settlement, and slope stability
- May recommend test pits, borings, laboratory soil testing, or slope analysis
- Provides recommendations for foundation support, underpinning, retaining walls, drainage, and soil stabilization

### Civil / Site Engineer

Plans the site systems around the structure.

- Evaluates grading, driveways, drainage discharge, retaining-wall layout, access, utilities, and stormwater flow
- Helps make sure repairs work with property lines, easements, setbacks, roads, and site constraints
- Can coordinate site plans needed for permitting or construction sequencing

### Hydrology / Drainage Engineer

Focuses on how water moves across and through the site.

- Studies roof runoff, surface water, groundwater, seepage, erosion, and concentrated discharge points
- Recommends swales, drains, culverts, catch basins, daylight outlets, and erosion-control measures
- Helps prevent repaired foundations or retaining walls from being damaged again by water

# The right specialist depends on what the site is telling us.

## Surveyor

Defines the legal and physical boundaries of the project.

- Confirms property lines, easements, setbacks, encroachments, elevations, and topography
- Provides base information for engineers, designers, permitting, and site planning
- Helps prevent repair work from crossing property lines or conflicting with access and drainage rights

## Architect / Building Designer

Helps integrate structural repairs with the finished home.

- Coordinates appearance, layout changes, exterior details, openings, decks, stairs, and finish transitions
- Helps turn engineering repair details into a finished design that looks intentional
- Can support permit documents when repairs affect elevations, rooflines, walls, or living space

## Septic / Well Professional

Evaluates private utilities that can affect repair planning.

- Locates tanks, drain fields, reserve areas, wells, lines, and access routes before excavation begins
- Verifies that grading, drainage, retaining walls, and equipment access do not damage septic or well systems
- Helps avoid costly utility conflicts on rural and hillside sites

## Building Official / Former Inspector

Adds project history and code perspective when available.

- Can explain prior observations, permits, inspection history, stop-work issues, or past repair attempts
- Helps the team understand what has already been reviewed and where concerns were previously identified
- Provides useful context, while final repair decisions still rely on current evaluation and professional design

# What should happen when the professionals meet on site.

## Pacific Craftsman / General Contractor

Coordinates the repair plan and executes the work.

- Organizes the evaluation, site meeting, photos, scope notes, and professional recommendations
- Develops the construction sequence, access plan, shoring coordination, demolition strategy, and repair budget
- Performs the carpentry, framing, structural repair, waterproofing coordination, and finish restoration necessary to complete the project

A coordinated site meeting is more valuable than collecting separate opinions. When the contractor, engineers, designer, inspector history, and site specialists can walk the property together, they can identify conflicts early and agree on a practical path forward.

- 1. Review the project history** - Gather prior inspection notes, seller disclosures, permits, photos, MLS images, repair invoices, engineering letters, and observations from anyone who has spent time on the site.
- 2. Walk the exterior first** - Study the slope, water flow, retaining walls, decks, posts, exposed footings, drainage outlets, erosion, fill areas, and access points before looking only at interior cracks.
- 3. Trace symptoms back to load paths** - Connect interior cracks, floor slopes, sticking doors, roofline movement, deck movement, and foundation conditions to the same structural paths.
- 4. Identify intrusive investigation needs** - Decide whether drywall, siding, deck boards, crawlspace insulation, or soil areas need to be opened up before the final scope can be priced.
- 5. Assign responsibility by discipline** - Clarify which professional is responsible for soils, drainage, structural design, site plan, permits, septic/well conflicts, and construction execution.
- 6. Define next-step deliverables** - Agree on what will be provided after the meeting: written observations, recommended testing, stamped details, permit path, budget range, and construction sequencing.

# From uncertainty to a clear repair plan.

- 1. Comprehensive Assessment** - We inspect visible damage and connected conditions: crawlspaces, attics, drainage, decks, foundations, framing paths, rooflines, retaining walls, and site access.
- 2. Simple Site Evaluation Proposal** - Before a full repair contract, we can prepare a focused evaluation proposal that defines the site visit, required specialists, anticipated deliverables, and next-step budget assumptions.
- 3. Professional Team Coordination** - When needed, we coordinate the structural engineer, geotechnical engineer, civil/site engineer, drainage specialist, surveyor, designer, septic/well professional, and building official history.
- 4. Detailed Repair Scope** - After the site is understood, we prepare a practical construction scope that explains what is wrong, why it happened, how it will be repaired, what needs engineering or permits, and what it is likely to cost.
- 5. Permits, Execution, and Documentation** - We complete the repair with proper shoring, safety procedures, inspections, and documentation that is useful for insurance, resale, and long-term owner records.

## What the Owner Should Expect

A good evaluation does not always produce a final construction price on day one. It should produce a clear, defensible path to the correct price.

- What is known now and what still needs to be verified
- Which specialists are required before the final repair scope is complete
- Where the largest cost risks are likely to be
- Which repairs are urgent and which can be planned in phases

- WHY HOMEOWNERS TRUST PACIFIC CRAFTSMAN

# Diagnose first. Engineer the repair. Execute with craftsmanship.

- 1. Diagnose Before We Prescribe** - We look for the root cause rather than writing a scope around the most obvious crack.
- 2. Work With Engineers, Not Around Them** - We collaborate with licensed professionals when the site, structure, permitting, or resale documentation requires it.
- 3. Old-World Craftsmanship, Modern Methods** - We understand older framing and also use modern fasteners, connectors, flashing, waterproofing, and engineering standards.
- 4. Respect Your Home and Your Life** - We protect finishes, control dust, communicate daily, and plan repairs so families can often remain safely in the home when conditions allow.
- 5. Older Homes Are Our Specialty** - We understand old-growth lumber, full-dimension framing, unique hillside homes, and the challenge of marrying older construction to current code requirements.

## - PROTECT YOUR INVESTMENT

*Not every crack means a home is failing. A professional evaluation can determine whether movement is cosmetic or structural and catch problems while they are still small.*

# PACIFIC Craftsman

## Schedule a Structural Assessment

Licensed • Bonded • Insured • Local

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Web: [www.PacificCraftsman.net](http://www.PacificCraftsman.net) | Serving Kootenai County & North Idaho

**Disclaimer:** The photographs in this brochure illustrate conditions that may be associated with structural movement and drainage concerns. It is not possible to determine the cause or extent of any structural issue from photographs alone. A thorough on-site inspection by a qualified professional is necessary to diagnose the underlying cause of cracking, settlement, or other signs of movement.