

## Construction Defects: Help is On the Way

Construction Defects have been front and center in construction industry news for years – with stories of unhappy homeowners, contractors unable to obtain insurance, and a flurry of lawsuits. Last year, **Steve Pinnell** testified before the Construction Claims Task Force, which reported to the Oregon legislature. This year, the legislature passed legislation addressing many of the Task Force’s recommendations.

More recently, **Greg Mockford**, Vice President for Construction Defect Services, has been the star expert witness on a number of significant construction defect cases, one of which may establish new case law. Greg’s testimony for Sam Anderson of Davis Rothwell Earle & Xóchihua on siding installation at the Springville Meadows Townhomes and for Jack Levy of Smith Freed & Eberhard on framing and window installation at the Montara Townhomes was key in both cases.



Our Invasive Testing Location Maps (measles charts) clearly demonstrated that only a small percentage of the areas investigated had staining or water damage to the sheathing behind the siding and illustrated the limited extent of damage. Our Power Point presentation supplemented this with images of the exact condition at each location.

For the Springville trial, we also produced a video showing how to make localized repairs only to damaged areas. These exhibits and Greg’s expert testimony demonstrated that a much smaller scope of repair than proposed by the plaintiff could achieve the same results. This helped the attorneys reach a favorable settlement for the siding installer.

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## Troubled Projects can be Turned Around

The Cambridge, a prestigious condominium and townhome project, is perfectly positioned at the foot of the Northwest Heights. Five buildings housing 61 penthouses and condominiums and nine townhomes front NW 24th Avenue between Glisan and Irving streets.

Last fall, The Cambridge was approaching 55% completion, but without a final building permit or a complete design.

A new architect had been hired, leaving the new design team’s structure and responsibilities unclear. The project was late and over budget.



Everyone was playing defense instead of focusing on successful completion of this inherently fine project.

In late 2006, Owner’s Counsel, Bullivant Houser Bailey, recommended hiring Pinnell/Busch to help manage the project. The owner, Cambridge Condominiums, LLC, agreed and **John Costello**, Vice President of Construction Management Services for Pinnell/Busch, became the owner’s representative for the project.

One of John’s first steps was to confirm LRS Architects in the traditional lead role of completing design documents and overseeing all design consultants. He then melded the contractor, subcontractors, lead architect, design consultants, marketing team, and owner’s representative into an effective project team.

While the design was being finalized, LCG Pence, the general contractor, focused on completing site design/build elements and completing and testing the work covered under the issued site and structure permit. Once design was complete, LRS submitted its comprehensive design

package for the final building permit.

**The old adage that “once a project goes bad, it will always be a bad project” has been proven untrue.**

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# Construction Defects

## Avoiding and Remediating Defects While Resolving Disputes

### 1. Introduction

Contractors, Architect/Engineers (A/Es), and Project Owners are all at risk from construction defect problems and the ensuing remediation and litigation. Here, we offer some advice on how to avoid defects, remediate those that do occur, and resolve any disputes before they become a claim or lead to litigation.

### 2. Design Phase – Owner, Architect/Engineer and Building Envelope Specialist

**Project Owners** control the project scope, select the project team, and require the team to control cost, time, and quality.

Start with a clearly defined scope of work – an ‘architectural program’ for building construction or ‘design criteria’ for engineering works. Then, verify that your budget is based on the scope and that the schedule is reasonable (don’t try to fast track without expert advice).

Next, hire the right Architect/Engineer. Consider their reputation for defect-free design, in addition to project performance, meeting budgets, timely completion, and good project management.

In addition, require your Architect to hire a Building Envelope Specialist to ensure against water intrusion, mold, and costly remediation – that can cost nearly as much as the original construction and often results in costly litigation. The A/E or Specialist should know local environmental conditions – heavy rains, wind and corrosive salt spray at the coast; extreme cold in Alaska and Montana; and moisture problems throughout the Pacific Northwest.

A Building Envelope Specialist is a person, often an architect or professional engineer, who advises on design (or purchase of an existing building), and investigates building envelope defects, identifies solutions, and oversees remediation. They also testify in court or arbitration on means and methods, costs, and who was responsible for the defect.

**Architects** may need assistance with current Best Practices for building envelope design, in addition to LEEDS, sustainability and other special services – for which the Owner is expected to pay, since they are the primary beneficiary.

**Building Envelope Specialists are expert in design and construction of roofing, cladding, doors and windows, flashing, and any penetrations of the building skin.**

### 3. Construction Phase

Regardless of whether you are using Design-Bid-Build, Agency CM, CM/GC-GMP, or Design/Build, **Owners** without ongoing construction programs should hire an Owner’s Representative with the expertise to manage the construction process and avoid defects. You also need a Building Envelope Specialist to ensure that envelope construction complies with the design and the workmanship is satisfactory.

Mockups have traditionally been used for aesthetic issues (color, texture, etc.) which are difficult to specify. Now, contracts are requiring mockups of windows,



roofing, and other critical building systems to help avoid defects. **Owners and A/Es, or their Building Envelope Specialist,** need to identify critical building systems that require preparation and testing of mockups. Manufacturers can often assist with mockups.

### 4. Maintenance and Operation Phase

**Contractors** should prepare a *Building Owner’s Maintenance Guide* and require the Owner to acknowledge receipt and agree to follow the guide. This reduces the risk of system failure due to lack of maintenance, which is often blamed on the A/E or Contractor. The Guide and one-year warranty inspections help identify incipient failures, which avoids continued deterioration and collateral damage, and can head off claims.

### 5. Litigation Phase

If all else fails, be ready for litigation.

**Building Owners** should determine the statute of repose in their state, and in addition to their regular inspection program, conduct an in-depth inspection before that date, with a focus on the building envelope and other systems that are prone to failure.

If problems are found, hire an attorney familiar with construction defect disputes. You or your attorney should retain an expert to determine the extent of the problem, whether emergency repairs are required, the needed scope of remediation, the probable cost, duration, and the impact on building use.

# Construction Defects

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**Contractors** or **A/Es** contacted by an Owner regarding a potential claim, should first (after calling their attorney) get the details and determine whether the problem can be resolved and serious conflict avoided by working with the Owner to fix it. If the Owner is reasonable and if your firm or subs are probably at fault, it is usually best to fix the problem – as long as there are no insurance problems and your Attorney approves.

**Attorneys** need the most qualified Expert Witness and field investigation team for successful resolution of a construction defect claim. The ideal building envelope expert is a licensed architect (or engineer for engineering projects and building system failures) with experience as a building contractor and in investigating and remediating construction defects. The expert must also have a reputation for credible testimony on the witness stand and the ability to provide solid, direct evidence that gives an attorney the winning edge.

## 6. Visualizing the Message

Regardless of the project phase, the visual display of information can be your most powerful tool for creating understandable and clear communication.

### Creating good graphics is like building a pyramid:

1. Review a massive base of raw data.
2. Select the few hundred documents that tell the story.
3. Construct detailed charts and tables of facts traceable back to specific documents.
4. Analyze the documents and detailed charts and tables.
5. Write an expert report that recites the facts and develops the findings.
6. Condense the salient facts and findings into graphic images that are quickly and clearly understood, and remembered.

Good graphics can tell a complex story with little or no supporting explanation. A graphic image can summarize hundreds of change orders, piles of certified payroll, boxes of files, and the consequence of change, delay, impact and bad weather – all on a single sheet of paper.

When presenting graphics, start with the details to 'build a foundation' and then summarize it for understanding with a chain of logic from your source documents to your summary charts.

**Patrick Melvin**, our Graphics Consultant, works with our clients and our Claims, Construction Management, and Construction Defects divisions to communicate complex, data-intensive stories of what happened and why.

## Project Highlights

In addition to the Cambridge project, **John Costello** has been helping Schwabe Williamson & Wyatt and Coos County with litigation over an 88-mile gas pipeline project. Last year, John coordinated repairs and completion of pipeline construction after the general contractor and designer quit the project. John is also providing Construction Management support on the Villabois Development in Wilsonville and has just begun assisting Big River Construction with refining their construction management procedures.

**Steve Pinnell** is busy on multiple projects, including claims defense on a large oil-related project in South America and for a university in Puerto Rico. Other Pinnell/Busch claims projects include wastewater treatment plants in Olympia, WA, Kittitas, WA, and Vernonia, OR; hotels in Chicago, IL and Boise, ID; a fish ladder in Washington; light rail in Seattle; a levee project in Florida; a hospital in Alaska, a paper mill in Toledo, OR; a state office building in Las Vegas; and various street, highway, bridge and building projects throughout the Pacific Northwest. **Gale Powell**, a long-term subconsultant in the Seattle area, has been working with Steve on many of our Washington and Idaho claims.

In addition, Steve assisted Carollo Engineering with Program Management (specifically estimating and scheduling) on a \$300 million water transmission main, and facilitated a strategic planning retreat for CAWS, a non-profit coordinator for training and promotion of minorities and women in the construction trades. Steve is also serving on an American Arbitration Association panel for a condominium project dispute in Chicago.

**Gene Smiley**, another new Project Manager and our firm-wide coordinator of Construction Claims and Dispute Resolution Services is assisting Steve. Gene has more than 12 years experience as a paralegal specializing in construction claims and disputes for regional law firms, in addition to 25 years in commercial real estate, construction financing, and mortgage banking.

**Blake Marchand**, Scheduling Manager, has been working on numerous scheduling projects including large residential developments, medical offices, a community center, a cathedral, wastewater pump stations, streets and highways, bridges, a mall, church, and a large hospital. Blake is also active on construction claims and construction defect projects, in addition to assisting Steve with our Program Management Services for Project Owners and Engineers.

One of Blake's projects is conceptual cost estimating and scheduling of the 1.5 mile Grand Ronde Road Widening Project in western Oregon. Todd Whitaker of Whitaker Engineering hired us and **Dave Place**, a long term

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### Construction Defects

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For the Montara trial, our nail analysis chart demonstrated that the number of 8-penny nails used by the framer on the window flanges had the same holding power as the more numerous 6-penny nails recommended by the manufacturer. The analysis and Greg's persuasive testimony helped convince the jury that the townhome windows did not need to be replaced – reducing repair costs by more than \$2 million.

While building envelope issues are most common, other prevalent construction defect cases have included foundations, interior finishes, HVAC and plumbing systems, and structural defects.

Greg and our Construction Defect Services group are in such demand that we are currently investigating and helping resolve more than one hundred active construction defect cases. To meet this need, we have assembled an experienced team: **Dan Cadd**, Project Manager and former general contractor with more than 30 years experience; **Robert Harp**, Project Manager and an experienced homebuilder's superintendent; and **Julie Molsom**, Projects Coordinator and a trained designer with 12 years project management and accounting experience.

We also pull in managers from other divisions including **Blake Marchand**, **Jennifer Thorne**, Office and Accounting Manager, and **Heather Steele**, Marketing Manager. In addition, **Patrick Melvin**, IT Manager and Graphics Consultant, creates case-winning demonstrative evidence.

### Troubled Projects

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Completion is now scheduled for January, and progress has improved to a rate that may allow the team to beat that schedule. Equally important, materials and workmanship are excellent and the outstanding design and location assure that The Cambridge will rank as one of the top condominium projects in Northwest Portland.

### Project Highlights

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subconsultant, to provide a budget and overall phasing for the project. Blake's work also included two constructability review sessions with Grand Ronde Tribes, Polk County, Yamhill County, design consultant Reece & Associates, Inc., Whitaker Engineering, utility companies and other regulatory agencies.

For more on our team members, please visit our website at [www.pinnellbusch.com](http://www.pinnellbusch.com).

## THE PROJECT MANAGER™

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Project Management Consultants to the  
Design & Construction Industry*

**HIGHLIGHTS: Avoiding and Remediating Construction Defects; Turning Around Troubled Projects; Project Highlights and Our Team Members**

LET US KNOW: Call, email, write, or fax this page to us if you're interested in more information on our services. Please tell us what subjects you would like to see addressed or who else would like to receive a copy.

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