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DAY OF RECKONING

Why We Can No Longer Ignore the Fatal Flaws in America's Construction Industry

>> By Barry B. LePatner, Esq.

Our wasteful construction industry has always been an expensive problem. But factor in a massive national deficit and the economic and safety threats caused by our aging infrastructure and you'll see that something has to give.

America's $1.23 trillion construction industry is like a tantrum-prone child whose parents indulge his every whim. At first it may seem easier to give him what he wants than to overhaul his behavior. But one day he knocks down a supermarket display and hurls an epithet at the CEO you just ran into in the candy aisle and you realize your *laissez faire* approach was a huge mistake. If you're not following the analogy, just replace "tantrums" with "cost overruns, project delays, and perpetual waste." Then, replace the career-busting CEO encounter with the Minneapolis Bridge collapse of August 2007 and its fallout and you'll realize that the Day of Reckoning is here.

That's right. We've *always* had a serious problem with what I call "the industry time forgot." But several events have converged to bring construction's shortcomings kicking and screaming into the spotlight: the bridge collapse, the nationwide safety-threatening infrastructure issues it has forced us to acknowledge, and the budget deficits that are crippling all levels of government.

We're in the middle of the perfect storm that could radically transform the construction industry. It's never been a secret that the industry has problems. Look at the Big Dig and its $12 billion cost overruns–all for a project that leaks. But it's gotten too expensive to keep shrugging our shoulders and saying, "That's just the way it's always been-nothing we can do."

Plus, it's no longer just about money. It's a matter of public safety and that changes everything. It's also a matter of America's ability to compete in the global economy. Our aging infrastructure won't help us stay ahead of an economic powerhouse like China, which, incidentally, has driven up our *own* construction costs. We need to take action–swift, decisive action that doesn't devastate our already strained taxpayers–and we need to do it now.

The answers require rethinking the way this antiquated industry is structured as well as the way key players make their money. In my book, *Broken Buildings, Busted Budgets*, I build a powerful case for a much-needed change to a risk-averse industry plagued with an archaic Mom & Pop mentality, ineffective management that wastes 50 percent of all labor costs, a shortage of capital, and a tradition of contracts that insulate companies from the costs of their own mistakes.

First things first, though. Before we can talk solutions, we must understand the sobering scope of the problems we're facing. Here are a few predictions on the disasters we're likely to suffer if we don't reform the industry.

Construction costs will skyrocket to dizzying heights.

America's construction industry inefficiencies waste more than $120 billion annually. Not scary enough for you? Try this. Before the Minneapolis bridge collapse, the Brookings Institution forecasted that our nation will spend $25 trillion on construction by 2030 and will create as much new building stock as currently exists. Now add to that the estimated $1.6 trillion believed to be necessary to remediate America's decaying infrastructure.

The numbers are staggering. And who will be picking up the tab? Taxpayers like you and me. Rather than continue to waste billions upon billions on inefficiency and mismanagement, now is the time to bring about reform to the industry. It's the only way to move forward.

As America's infrastructure ages we'll see more and more structural failures.

The I-35 bridge collapse could be a harbinger of disasters to come. Many of America's big bridges were built around the turn of the century. In such instances, patching problems doesn't cut it. These structures simply weren't designed to last a hundred years or more without major renovations. Estimates vary on how much remediation of America's infrastructure is needed, but most experts agree the cost is well into the hundreds of billions.

How did the problem get so severe? Since remediation isn't a "sexy" topic, political leaders tend to ignore it.

For decades our leaders have closed their eyes to reams of engineering analysis and reports that have highlighted the deteriorating nature of our infrastructure and the costs of remediation–costs that increase exponentially as every year passes. Most politicians push these reports aside for a successor to handle, and as a result, the problem has snowballed to staggering proportions. Only

THE ROAD TO REFORM

FIVE WAYS TO FIX AMERICA'S BROKEN CONSTRUCTION INDUSTRY

1 Adopt fixed-price agreements. Construction contracts should 1) be based on 100 percent complete architectural and engineering drawings and specifications, 2) include a fixed price for everything designed and approved by the owner, and 3) apportion all the risks that are expected during construction between the parties. Standard contracts devised by members of the industry are generally insufficient as they fail to properly allocate risk among the parties and provide proven loopholes for contractors to make claims for additional costs. Their shortcomings drove our firm to create the *Equitable Risk Allocation Agreement*, a fixed-price contract that serves the interests of all parties.

The right contract for any owner going into a project is one that offers a true fixed price. Their absence in today's industry is a huge reason contractors consistently exceed a project's budget. Securing a true fixed-price contract for your project will require your architect and engineers to deliver to you a set of construction documents for bidding that are fully detailed, complete in all respects, and coordinated with each other. Then include language that states the construction manager has reviewed the documents and the contract price offered includes all necessary work, labor, and material needed for the project-this will help protect you against a 'creeping' price.

2 Foster the rise of better intermediaries. Asymmetric information is a huge issue in the construction industry. Contractors simply know more about what costs make up a budget than the owners. The introduction of true intermediaries could alleviate this problem by giving owners an industry-educated advocate who would keep their best interests at heart when working with contractors. There are three possible options: 1) construction managers could work cooperatively with architects; 2) guaranty companies could expand their current role and provide oversight of the construction manager; or 3) hard-nosed, independent owner representatives or project managers with extensive practical construction experience could work on the side of the owners to oversee the construction manager and design team and could significantly reduce the information asymmetry.

3 Consolidate and integrate. Consolidation of the construction industry will start to occur when owners, especially governments, insist on true fixed-rate contracts. When contractors can no longer wiggle out of bid terms after all credible threat of competition has ended, construction firms will finally feel the full brunt of market competition. The large, well-managed firms created will come to have a significant presence in the Fortune 1000 and will do everything from manufacturing and stockpiling construction materials to maintaining structures they erected years and even decades before. Construction sites will resemble modern automobile factories more than pre-industrial artisanal playgrounds. Buildings of all types will cost less than they do now, and/or there will be more of them, and/or they will be of higher quality.

4 Increase the use of promising new technology. Today advanced design programs offered by modeling and analytical software makers are collectively known as Building Information Modeling (BIM) software. BIM software models and analyzes detailed data covering a multitude of building characteristics, such as air flow, heat gain, structural analysis, and related costs, among others. BIM offers better quality information to members of the construction team, increases coordination, and can significantly reduce conflicts between the architect's, structural engineer's, and mechanical engineer's designs before the bid drawings are issued rather than discovering the conflicts during construction when they instantly become costly change orders. The program also can be a lifesaver for owners because it helps them more easily see and understand how long a project will take to build and how much it will cost.

5 Institute a national impetus for increasing the number of engineers and construction experts. Right now we're woefully undermanned. America simply doesn't have the structural and civil engineers it needs to perform the overwhelming amount of infrastructure remediation and general construction that must be done. I would like to see a national effort aimed at increasing the numbers of civil engineers and construction experts needed to fully reform the construction industry. Think of it as a 21st century version of the 1950's push for science education in the aftermath of Sputnik. We need to tell our young people that construction is an exciting and noble career and strengthen those areas of our school system accordingly.

construction industry reform will free up the time and money necessary for repairing our nation's infrastructure.

Notwithstanding the current decline, home prices will continue to soar due to overruns and delays.

We can't have new homes, apartment buildings, or other places to live without the construction industry. And at a time when many homeowners and would-be homeowners are already struggling in the wake of the subprime mortgage collapse, home prices have traditionally risen because of cost overruns and time delays.

If the construction industry could become more efficient, less money would be spent on projects. Cost savings would be passed along to consumers and taxpayers, making homes more affordable and giving the economy a much-needed shot in the arm.

Project delays will continue to rack up frustrating–and unnecessary–costs for businesspeople and taxpayers alike.

Construction projects that aren't completed on schedule are expensive for everyone involved. If you build an office park, for instance, and it opens a year later than projected, you miss out on a year's worth of rent. And think about who bears the brunt when publicly funded projects are delayed… and delayed…and delayed. That's right. The ever-beleaguered taxpayer.

If a school is supposed to be completed in August but it takes until December, obviously there are repercussions. The school year must start on schedule and the students have to go somewhere. So the school district ends up having to spend hundreds of thousands of dollars on trailers to crowd kids into until construction is completed. These kinds of expenses are maddening because they don't have to occur.

Taxes will increase.

Productivity on government construction projects lags behind that on private projects by a significant margin. Why? Because public officials have less incentive to keep caps on costs since they can often simply appropriate additional funding or, if a local municipality, float another bond issue to the taxpayers. Obviously, this is not good news for an already overburdened citizenry.

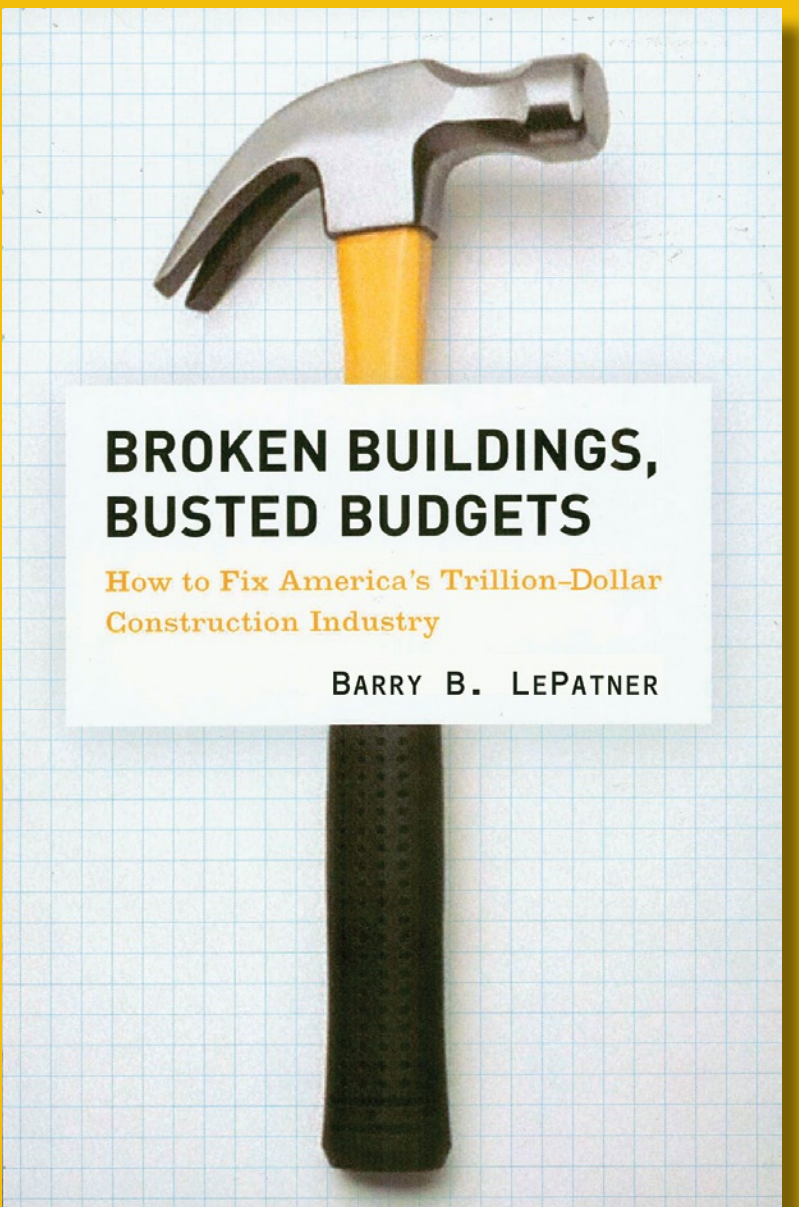
Most Americans want low taxes, but also plenty of public goods, including nice schools, parks, municipal parking lots, stadiums, roads, and bridges. Such seemingly incompatible goals can be reconciled only by making the construction industry more productive, capable of producing more built space with fewer dollars than in the past.

When a construction project like a school is completed on time, the surplus can be used to fund more teacher salaries or computer labs. I've helped school districts accomplish this by ensuring that construction projects come in on time and under budget–it *can* be done.

Here's the bottom line: America's construction industry *will* change. That change can come from within, or it can be imposed by an equity-investing business world. Either way, a revolution of sorts is imminent–and as with all revolutions, there will be winners as well as losers.

Change will come, mandated by law or by the marketplace. Those who get on board with the changes to come will realize that while the process may be painful, the outcome is most assuredly not. Opportunities and increased profits abound for those with the guts and the savvy to realize a new vision and work toward its creation.

Barry LePatner is the founder of the New York City-based law firm LePatner & Associates LLP. For three decades, he has been an advisor on business and legal issues affecting the real estate, design, and construction industries.



ABOUT THE BOOK

Broken Buildings, Busted Budgets: How to Fix America's Trillion-Dollar Construction Industry (The University of Chicago Press, October 2007, is available at bookstores nationwide. For more information, please visit www.brokenbuildings.com.