

# 10 Ways

## to Reduce Construction Costs

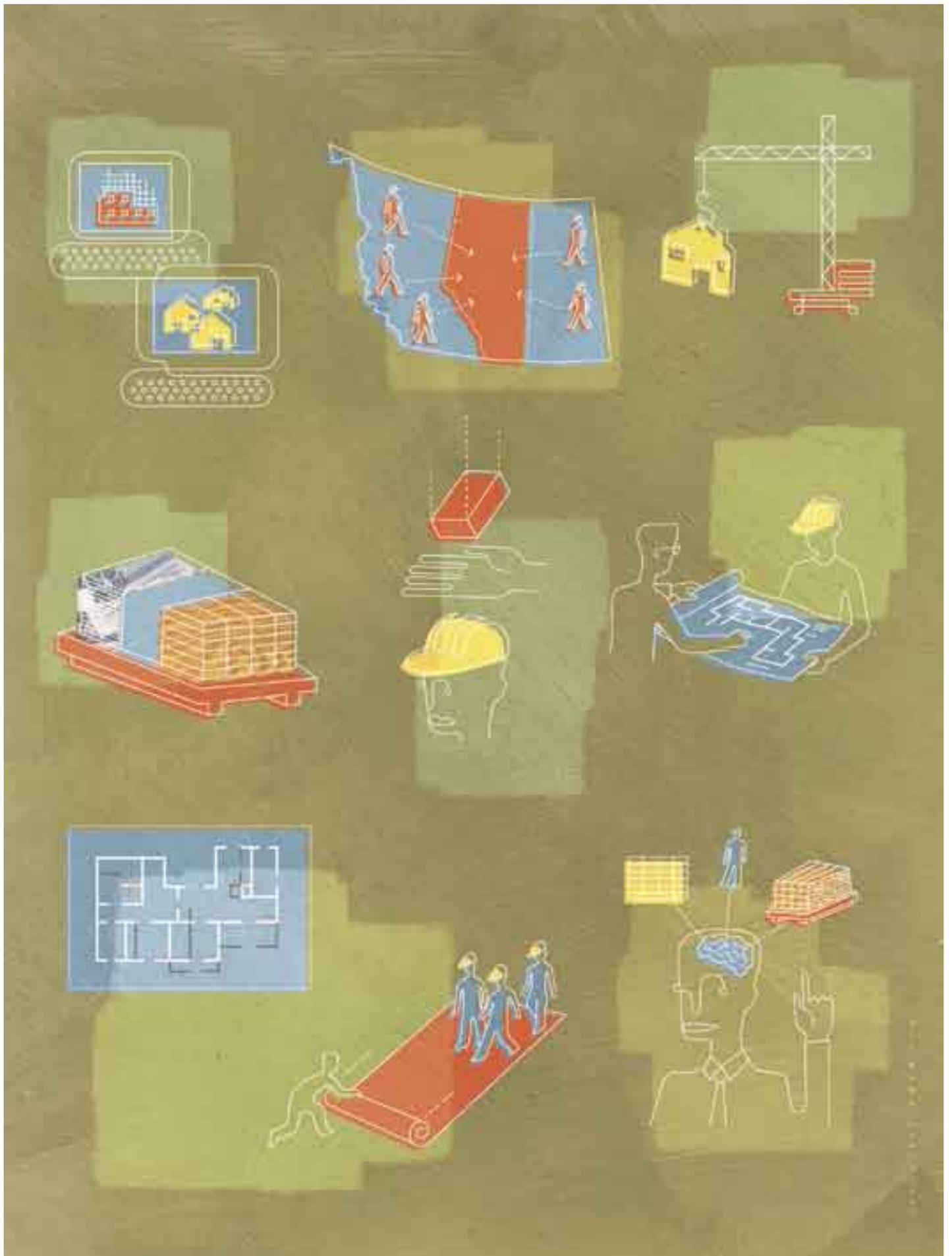
Rethinking the way you do business can boost your bottom-line

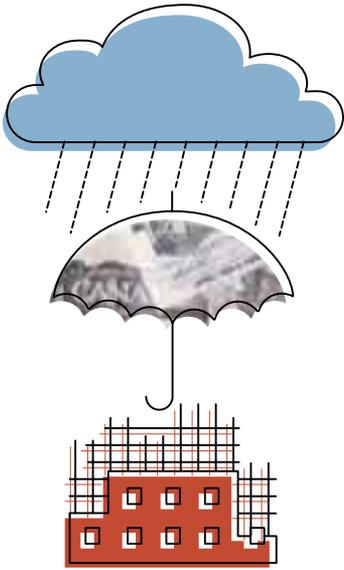
BY JIM VEENBAAS

**S**ustained economic growth, and record levels of residential, commercial and industrial construction activity means business is booming for Alberta's construction contractors. Despite the rosy outlook, many companies are grappling with an extremely complex business environment that makes it more challenging than ever to complete projects on time, and on budget. Rapidly escalating costs and labour shortages make it difficult to accurately estimate construction costs on even the simplest jobs.

"The uncertainties are much greater

now. The ability to predict what your costs are going to be at the end of a project is much more challenging than it has ever been," explains Joel Thompson, vice-president of Merit Contractors Association. "If you're submitting a price today for a project that won't be finished for 16 months, what do you include as a wage escalator, what do you put in as a commodity price escalator? Companies have to take a long-term outlook, but there's so much uncertainty out there." Can't figure out how to boost your bottom line? Here's some ways to double your profits and reduce costs now.





**1. Create a contingency fund**

A well-planned contingency fund can help construction companies prepare for unexpected costs, but it can also push sub-contractors to submit lower bids. Chandos Construction is encouraging its sub-contractors to submit low-cost bids, with the provision that they can draw upon a contingency fund if they experience unexpected expenses.

“With the dynamics we have in Alberta now, sub-contractors will look at a job and worry about

losing their shirts so they increase their number by \$100,000. If you have 10 sub-contractors, that’s \$1 million high,” says Tim Coldwell of Chandos Construction.

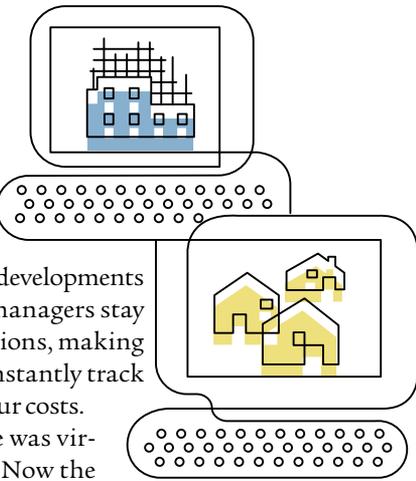
“We allocate a pot of money that sub-contractors can draw from, but we ask them to base their numbers on typical conditions, not a rainy summer. If we do run into some issues, we have the contingency fund and we look for solutions to maintain our schedule.”

**2. Use IT**

Internet technology has revolutionized the way many industries operate, and the construction sector is no exception. Online project management allows savvy contractors to instantly access project developments and it also helps project managers stay posted on document revisions, making it easier for managers to instantly track billings, material and labour costs.

“Seven years ago, there was virtually nothing out there. Now the Internet is used all over. When people are communicating, it saves everyone money and technology enables that to happen,” says Brian Ranger, PCL’s general manager for systems and technologies.

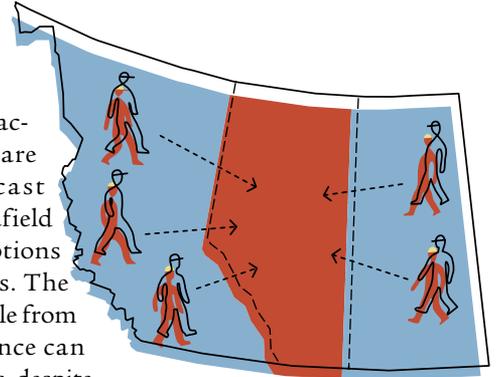
When Ranger joined PCL in 1999, the company was using dial-up Internet services. Now it has T1 and T3 connections, laptop computers on the job site, satellite transmissions and its workers carry PDAs. The technology provides project managers with timely information, reduces the volume of paperwork and improves communication between the builder, architect and building owner. “Communication is critical when the owners, architects and builders are all in different places, possibly different time zones. If we are linked together and sharing documents, everyone can



see what’s happening with the project. That reduces the possibility of misunderstandings and costly problems.”

**3. Recruit from outside of the province**

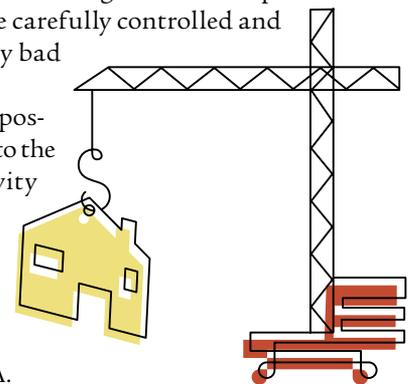
If local sub-contractors and workers are too expensive, cast your eyes further afield and investigate options in other provinces. The cost of hiring people from outside the province can be considerably less, despite travel and accommodation expenses. Even if you figure that you’ll have to pay \$8,000 to rent a house or hotel for these workers, that money can easily be recouped if sub-contracting and labour costs are reduced in a meaningful way.



**4. Profit from prefabs**

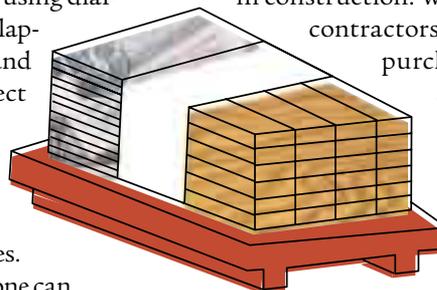
Prefabrication is playing a big role in the massive construction projects taking place in Fort McMurray, with companies like Flint Energy Services building their units in pieces in the Edmonton area and shipping them up north for assembly. Prefabs have always been a mainstay of the residential construction industry, where windows, doors and cabinets are built off-site. By building more components at the shop, or ordering them from suppliers, production can be carefully controlled and work won’t be delayed by bad weather.

“Assemble as much as possible indoors and bring it to the site in pieces. Productivity will increase and so will quality,” says Mohamed Al-Hussein, assistant professor of Construction Engineering and Management at the U of A.



**5. Bank on lower prices**

Next to labour, the cost of materials is one of the biggest expenses in construction. With prices shooting through the roof, contractors can maximize their line of credit by purchasing as much material as possible at the start of a project. This cost-saving move not only saves cash, but also delivers price stability. “With the low interest rates we have now, one or two points above prime for most businesses, the cost of borrowing is chump change. We’re taking advan-



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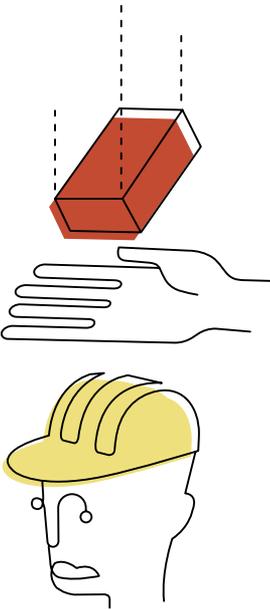
tage of supplier-offered, early-payment discounts. It doesn't change the way we operate and our suppliers absolutely love us because we pay them early," says Don Muth, president of Muth Electrical Management. "It sounds simplistic, but lots of companies aren't doing this and it will cover 80% of the problems associated with fluctuating prices over the course of a two-year project."

**6. Put safety first**

An effective safety program is the key to cutting WCB and private insurance premiums. Companies with a track record of minimal workplace injuries can save up to 40% in WCB premiums.

The WCB's Partners in Injury Reduction (PIR) program offers discounts to companies that have successfully implemented health, safety, and disability management programs and have achieved Certificate of Recognition standards set by Alberta Human Resources and Employment, and certifying partners like the Alberta Construction Safety Association.

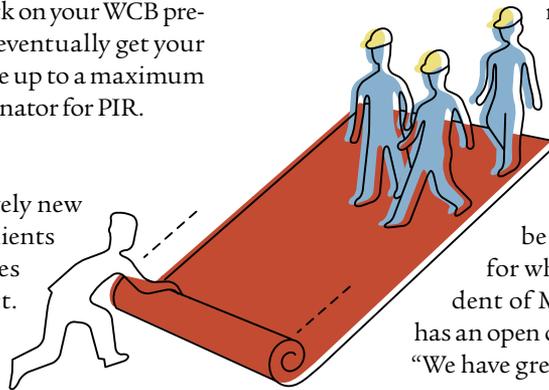
"Just saying you plan to earn a Certificate of Recognition will get you a minimum of 4% back on your WCB premiums. When you eventually get your certificate, right away you'll receive a 10% rebate up to a maximum of 20%," says Cindy Schubert, program co-ordinator for PIR.



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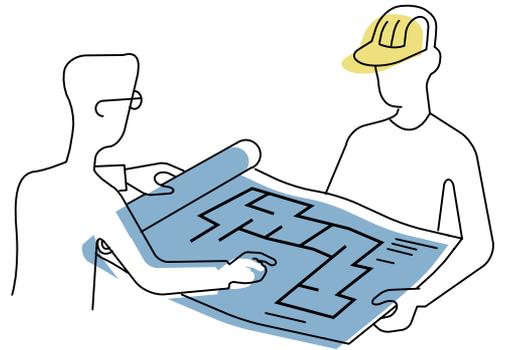
**7. Choose design-build**

Save big on construction costs with a relatively new construction method called design-build. Clients deal with only one company, which provides design and construction under one contract. By working together as a team, the designer and builder improve quality, while reducing



administration, claims and litigation.

Some companies won't bid on design-build projects because they consider the process too complex but that's simply not the case, says Dianna Fournier, assistant director of the Canadian Design-Build Institute. Design-build allows contractors to control design and construction, putting them in the driver's seat. "It saves time, reduces some steps and saves you money. You start the job quicker because so much of the design is done beforehand in the request for proposal stage," says Fournier. "It's not for everyone and it's not for every project. You have to have a really good relationship with the people you are working with or it's just not going to work well."



**8. Attract and retain workers**

Labour, the biggest problem facing construction companies, has put a premium on attracting and retaining employees. High wages go with the territory, but keeping skilled workers goes beyond fatter pay cheques. Employees are happier when they are respected by managers and site superintendents, when their input and expertise is valued, and when they feel informed about what is happening within the company. "What a person wants most out of their job is to work for a good boss. They want to be appreciated and given affirmation for what they do," says Don Muth, president of Muth Electrical Management, who has an open door policy for all his employees.

"We have great Christmas parties, on-site barbecues and praise our workers for a job well done. We recently surprised the staff by announcing that we are taking 50 of our key guys on an all-expense paid fishing trip to Vancouver Island. Everyone is so pumped up they're going to work their tails off all year. It really keeps up morale because you're sharing success and the staff wants to be part of that success."

**9. Manage better**

There's no silver bullet when it comes to increasing productivity, but Janaka Ruwanpura, a professor at the University of Calgary, puts the responsibility squarely on the shoulders of management. The researcher



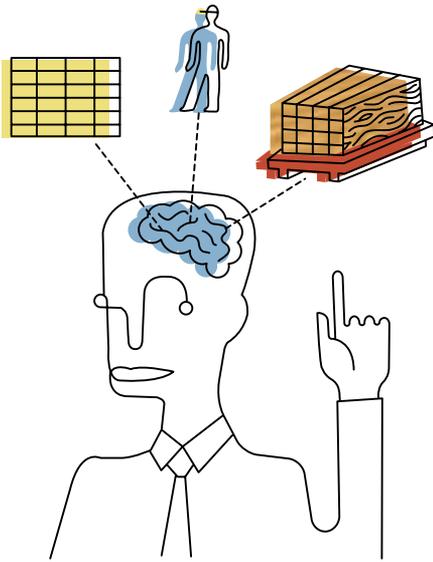
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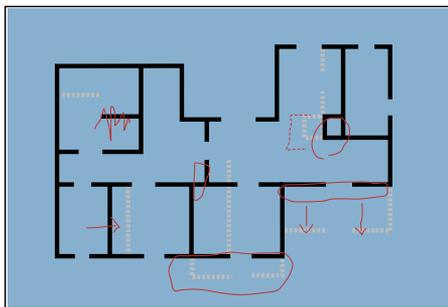


recently completed a study for the Calgary Construction Association, developing a list of 51 factors that can impact productivity. The most important items include lack of detailed planning, lack of worker experience and skill, inadequate supervision, worker motivation and lack of proper materials at the job site. "There is enormous potential to

improve the overall productivity of the construction industry by improving our current production management strategies," says the University of Calgary's Ruwanpura.

### 10. Identify potential problems early

How many times has this scenario played out on a project? You build a component of a project, then a major flaw is discovered and it has to be rebuilt. Field rework is as old as the construction industry itself. Typically, it can consume 10% of the final cost, and in some cases, rework can lead to substantial time delays and eat away at profit margins. The Construction Owners Association of Alberta (COAA) has developed a software program to help contractors track the status of projects and flag potential problems beforehand. The Project Rework Reduction Tool was designed to determine project deficiencies that cause expensive rework. The program, which can be used during different phases of a project, asks contractors a series of in-depth questions, tabulates the results and gives the project a rating. "It's a built-in-Alberta solution that gives managers a dashboard showing how well they are doing with various aspects of a project. If you have a red light on the dashboard, then you have to do some further work



before you can progress to the next stage," says Don McLeod of SNC-Lavalin and former chair of the COAA's Rework Committee.

In addition to helping construction companies track the status of projects, the program also offers possible solutions to areas of deficiencies and best practices research, giving project managers a practical method for reducing possible rework.

"If you don't do step A and B properly, when you're working on step F, there's going to be problems. It's a little bit like the old Fram Oil filter ads: 'You can pay me now or you can pay me later.'" 

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