The 2015 Construction Forecast Issue

Mark Caseletto, VP & General Manager, Reed Construction

New safety programs on their way

CCInnovations aims to increase industry productivity

Featuring BNE Contractors: our profile lottery winners
MESSAGE FROM THE PRESIDENT

Let’s Make 2015 the Year for Gold Seal!

It is encouraging to me to see the forecast for growth in our region next year. All signs suggest that the Kitchener-Waterloo region will be among the five fastest growing economies in the country in 2015; the outlook for construction in this region also appears good. What better time than now, then, to brush up on your Gold Seal certification? Anyone who knows me knows that I am a tireless advocate for Gold Seal. I truly believe that it is the best certification program for our industry—a recognized national standard created by construction for construction. Gold Seal certification helps distinguish individuals and businesses for their competencies, their commitments to education and professionalism. Think of it as a competitive edge—a new way to elevate yourself or your company above the fray.

It’s important to remember that Gold Seal is valuable to not only contractors and their employees. Owners and buyers are increasingly using Gold Seal certification among the criteria they use to select a contractor for a job. They view Gold Seal certification as proof positive of the skills and competences of the people and companies they hire. They may even take things a step further by registering a project as a Gold Seal Project—as Maple Reinders and the City of Guelph did in 2011 on the Guelph Organic Waste Processing Facility. In a Gold Seal Project, a contractor works with their local construction association and the Gold Seal Certification program to jointly promote Gold Seal as part of a construction project. The objective is to educate non-certified workers about Gold Seal Certification and to honour those who have earned their certification.

Let’s make 2015 the year for Gold Seal. It’s our industry’s designation and we should be proud to show off this important standard to everyone.

MESSAGE FROM THE CHAIR

The DOMINO Effect

Like Martha, I’m optimistic for what 2015 holds for our industry. If you attended the GVCA’s Economic Forecast event in November, you heard from a roster of public and private sector buyers about their plans to build in 2015 (and if you didn’t, see our wrap-up feature on page 22).

By and large, I can tell you the news is good. Major buyers in the municipal, schools and hospital sectors plan to spend on construction next year. And let’s not forget the ongoing value to our industry of the $800-million-plus light rail construction project. The experts at the Conference Board of Canada say that by the end of 2014, our industry will have grown by 11 percent. It’s expected to grow by a further one percent in 2015 and a little more than five percent in 2016.

All that is exciting. But what’s doubly exciting for me is the knock-on effect that these projects will produce. You don’t have to be an economist or an urban planner to understand that growth begets growth. As more and more major buyers in the MASH sector spend on transit and other forms of infrastructure, more people will move to our community and demand new places to live, new schools, new shops and new office buildings. That’s good news for those of us who make our livings in construction.

Our industry is cyclical. Everyone knows that. We’ve had our share of good times and bad, but as I look ahead, I see positive signs for 2015 and beyond. Let’s celebrate that and prepare ourselves for what looks to be a busy year.
Supplier of reinforcing steel products

Albrecht Reinforcing Inc. is a leader in fabricating, supplying and installing reinforcing steel accessories and wire mesh.

- Estimating & Detailing
- Supply & Installation
- Wire Mesh
- Tie Wire & Plastic Chairs
Many owners insist on incorporating liquidated damage clauses into their contracts as a motivator for project completion within a specified time.

Deadlines for the completion of construction projects are good for owners and contractors. The owner wishes to use the finished product as soon as practical so that it may enjoy the benefits of its investment. The contractor who allocates resources to a project wants to ensure those resources are earning an appropriate return. A delayed project can erode profits and prevent resources from being deployed elsewhere.

**What are liquidated damages and how are they set?**

Liquidated damages are defined as a genuine pre-estimate of the probable loss that the owner would suffer from the late completion of a contract.

In order to be enforceable, liquidated damages must not be a penalty. Liquidated damages will be considered to be a penalty if they are extravagant or oppressive in relation to the conceivable loss the owner would suffer from late completion. If liquidated damages are found to be a penalty, a Court will compensate the owner based on its actual losses.

The person arguing that liquidated damages are penalty bears the onus of establishing this point. Owners will not be held to a standard of perfection as long as the estimated damage amounts are reasonable. Courts recognize the utility and value of a fixed pre-estimate of damages because it saves the parties the time and expense of proving actual damages.

Many contractors prefer the certainty of a fixed amount of damages if they cannot complete on schedule.

Market forces help ensure that liquidated damages are appropriately set. If the damages are set too high, contractors will not bid on a project or will inflate their bids as a safeguard, which in turn will drive up the cost of projects. If liquidated damages are set too low, a contractor may have an incentive to go over schedule if the prescribed damages are less than the acceleration costs to complete on time.
Extended completion dates and liquidated damages.

Numerous events beyond the control of the contractor can interfere with the completion of the contract within the specified time. As such, a contract with a liquidated damages clause must include provisions for extending the completion date in order for the clause to be enforceable. In the eyes of a Court, it would be unfair to charge liquidated damages without a mechanism that allows for extensions of time for events beyond the control of the contractor.

A prime example of external events causing a contract to take longer to complete are requests for extra work from the owner. Contract provisions for the extension of time to complete are as much for the benefit of the owner as the contractor in that they adjust the completion date and thereby preserve the owner’s right to claim liquidated damages if the project is not finished by the new completion date. Requests to extend a contract completion date must be handled properly by an owner and its consultant. An owner will lose its right to claim liquidated damages if the owner or its consultant fails to respond to a contractor’s request for an extension within a reasonable time after receiving the request. It is essential that the contractor knows the new date for completion because without this information the contractor cannot adjust its schedule and accelerate work if necessary. Liquidated damages must run from a specific date. Without a specific date, they cannot be calculated and will not be enforced by a Court.

The loss of the owner’s ability to charge liquidated damages does not eliminate an owner’s right to claim damages for late completion but the test for late completion changes to proving a reasonable completion date and damages will be measured by actual losses and not a pre estimate of damages.

This article was written by Greg Murdoch, a partner at SorbaraLaw. SorbaraLaw provides guidance to clients through all stages of the construction process. Greg can be reached at gmurdoch@sorbaralaw.com or 519-749-4608.
Let's face facts. It’s probably been a while since you last took a look at your company’s marketing materials. After all, you’re too busy running your business to worry about that kind of thing. If that’s the case, make a resolution to spend some time on your marketing materials in 2015.

You don’t have to spend a lot of time on this. You won’t have to spend a lot of money either. But as any good business leader knows, a bit of time and effort and cash invested wisely and in the right places can yield exceptional dividends. We’ve come up with four tips that you need to follow right now to make your marketing better in 2015.

1 Hire a Photographer

You might ask yourself why you would spend money on a photographer when you and your employees all carry perfectly good smartphones that are equipped with high-resolution digital cameras. The answer: because although anyone can take a photo—in the sense that they can aim the camera at the right object and press a button—very few people take photos well.

Photos taken by amateurs using smartphones look just like that. Lighting is often wrong, composition not good, image occasionally blurred. In other words, by asking your site super or project manager to take some jobsite photos for nothing, you got what you paid for.

A professional photographer is trained in taking exceptional photos that will make your marketing content—websites, newsletters, brochures—sing. You don’t have to pay a fortune. For example, a 10-megapixel Nikon D3200 with an 18-55mm lens and flash, software, and transportation is about $650. That’s a lot of money, but it’s a lot less than what a professional photographer would charge.

Design is another discipline best left to the professionals. It’s one of those things, like photography and content development, that anyone can do, but few do well. That said, it’s not always practical to use the services of a professional designer. Yes, you want his or her services for your new website or brochure, but maybe you don’t for a letter, or an RFP response document.

For those times when you’re going to take on design work by yourself, keep a few basic principles in mind. First, keep the look clean and simple. Resist the temptation to overuse typographical formatting such as bold, italics and underline and pick simple fonts that are easily read. Second, use headings and subheads to guide the reader through the document. Help them get to the parts of the document they want to read. Finally, embrace white space. It’s ok to scale back on content and introduce empty space in the document. It actually makes the page easier and more enjoyable to read.
...a bit of time and effort and cash invested wisely and in the right places can yield exceptional dividends.

3 Make the Customer Act

One of the most important things your marketing material should do is prompt the customer to act. Each of your pieces—brochures, websites, case studies—should offer a clear call to action. Don’t make the mistake of assuming your engagement with your client ends with handing off a brochure or directing them to your website. You always want to be driving him or her to the next engagement. A call to action does just that.

Calls to action don’t have to be complicated. A simple “call us for more information” is a good one to include on your website, for example. You can also invite the customer to download a brochure, submit his or her email address for follow up conversations, even request a sample of your product, or even ask for a quote for services. The sky’s the limit. Just remember to keep driving the customer toward that next engagement and, hopefully, next sale.

4 Consider Case Studies

A case study is a very powerful tool and it’s one that’s sometimes overlooked in marketing packages. Presented properly, the case study walks a reader through a particular challenge faced by one of your customers, shows the steps your company took to solve that problem, and even shows some of the lessons you learned along the way.

The next time your company finishes a particularly complicated build with pressing deadlines, a tight budget and strict quality requirements, consider drafting a case study. It’s a compelling way to show off your exceptional work.

One last note on the subject: case studies are complex documents that must be structured in a particular way. Unless you’re familiar with how to write one, consider hiring a professional to draft the content for you. After all, you want this thing done right the first time.
The Value of Having written policies

But in What Format?

Several personnel managers I’ve talked to have told me that they are getting contradictory information concerning the usefulness and value of having written policies.

On one hand, they are being told that having written policies is a way of communicating their organization’s values, rules and practices to employees. On the other hand, a number of lawyers are warning them that poorly drafted policies could land them in court. Well, these positions are not contradictory, but are both right?

Well-written policies can both serve as an effective communication device and help you stay out of court, or at least give you a better chance of preventing unnecessary miscommunications or incidents.

Policies and procedures (standard practices) are statements and guidelines of how the business and employee relations will be governed, and are directives for administrative practices and controls that must be observed. Moreover, a policy lays out what management wants employees to do, and a procedure describes how it should be done. Procedures describe exactly how to carry out the policy and contain much more detail.

This commentary will help you understand the value of having written policies, as well as the difference between a policy manual and employee handbook, and if you should have one or the other, or both.

What is a Policy and Procedures Manual?

Companies develop policy manuals to help managers and employees run the organization. It is a method to establish the management rules and guidelines of the organization.

As a company develops its policies, they become a framework for consistency and fairness. Policies define management’s standards for making decisions on various personnel and organizational issues. Clearly defined procedures and standards, derived from policies that are well thought out, express the company’s intent to make consistent and even-handed decisions.

They are developed in light of the mission and objectives of the company, and they become the media by which management documents and communicates its plans, rules, intents, expectations and business processes to all staff. In addition, supervisors and managers are more likely to consistently apply policies that are clearly communicated in writing.

What is an Employee Handbook?

An organization will usually have an employee handbook because it already has a policy manual. The handbook summarizes your policies and expectations to employees in a very simple way, in a style and format that is easy to use. The handbook may reference the policy manual, but is not written in such a formal way.

Usually, the statement that forms the policies in the employee handbook is derived from the policy manual. The employee handbook usually does not include information about supervisory procedures.

An employee handbook is a manual that consists of several policies, which an employer will provide to new employees in order to acquaint them with their new company and its workplace policies. When distributing the employee handbook (new or revised) to employees, it is highly recommended that the employer include a separate acknowledgement form to be signed by the employee and returned for retention in the employee’s personnel file.
Are You Required to Have Written Policies?

No provincial, territorial or federal law requires an organization to have a policy manual or employee handbook. However, there are certain policies that are required by law. Every organization should have a published privacy policy, violence in the workplace policy, health and safety policies, and a written policy about non-discrimination and harassment as well as sexual harassment. Rather than have five separate policies, these can be combined in a comprehensive manual and summed up in the employee handbook.

There are benefits to having both an employee handbook and a policy manual as well. Companies can cover important general topics, such as sexual harassment, in an employee handbook, but leave other items that might cause problems in employee handbooks, such as progressive discipline guidelines, in policy manuals where they are far less likely to create unintended contracts.

Sound employment policies have a positive impact on employee relations. A human resources policy manual and an employee handbook describe to both managers and employees what the company expects of them, what the company workplace policies and benefits are, and prevent misunderstandings. Employers can use a carefully written policy manual and employee handbook to illustrate their commitment to a positive work environment and non-discriminatory employment practices.

Clearly, the scope and purpose of these two documents are quite different. Because of these differences, employers should not attempt to use one manual to serve both purposes.

This article was written by Yosie Saint-Cyr, LL.B., Managing Editor at HRinfodesk.com.

Well-written policies can both serve as an effective communication device and help you stay out of court.

Sustainable Building Solutions
For High Performance Commercial Buildings

• Sustainable Solutions
• Environmental Technologies
• High Efficiency Products
• Integrated Controls
• Energy Consulting

• Performance Management
• Green Building Design
• Complete Service Offering
• Building Automation Systems

For more information, please contact your local Commercial Sales Manager

Central South Western Ontario
(Owen Sound, Kitchener/Waterloo, Brantford)
Scott Buck
Tel: (519) 744-5601
Scott.Buck@carrierenterprise.com

Central Region Canada
(Ontario)
Joseph Tarascio
Tel: (905) 405-3256
Joseph.Tarascio@carrierenterprise.com
CONSTRUCTION TECHNOLOGY

Trends to Watch This Year

Technology is evolving at an exponential rate. Each year there are more impressive advancements than the last, and the time between a technology being born and its practical application becomes ever shorter.

This truth is relevant across the board, and the construction industry is certainly no exception. To put this in perspective, consider the fact that it wasn’t until around 2008 that laptops were beginning to be used on jobsites. By 2010, smartphones had quickly become the new hot topic, and by 2012 mobile apps and cloud-based technologies began taking the industry by storm.

Given the speed at which technology is advancing in the construction industry, slow adoption today could mean a large technical divide tomorrow. It is important for leaders to understand emerging trends and evaluate them upon their introduction to the industry in order to maintain a competitive advantage. With this in mind, here are some of the top emerging trends in construction in 2015.

Device Convergence: Phablets to Replace Tablets

A phablet is a smartphone with a screen that is intermediate in size between that of a typical smartphone and a tablet computer (phone + tablet = phablet). In 2013, phablet sales accounted for one-quarter of all smartphone sales, and with Apple’s recent launch of the large iPhone 6 Plus, this number is expected to keep growing. Construction professionals have been struggling for the past few years over whether they should deploy tablets such as the iPad onsite due to the large screen size, or invest in company smartphones that allow for better collaboration. The struggle is possibly coming to an end with the introduction of phablet devices that provide the best of both worlds.
We are moving towards truly paperless jobsites where drawings, punch lists and change orders are shared from the jobsite to the office using a suite of integrated cloud-based applications. While paperless is not synonymous with the cloud, the two must work hand in hand in order to achieve a working system. Simply deploying one or multiple cloud solutions does not equal going paperless. The key to a truly paperless jobsite, or even just a paperless process, is complete adoption of the software. When software lacks adoption then the process generally becomes fragmented with portions being completed within the software and portions being left untracked and managed via scattered paperwork and unrecorded notes – defeating the purpose of cloud-based paperless solutions.

Some good first steps towards achieving a paperless jobsite are cloud-based document management solutions such as Google Drive, Dropbox or Box, mobile apps that encourage digital instead of physical input of daily notes and the deployment of tablets or company smartphones onsite. However, since proper roll-out is contingent on full team buy-in, before any of the above ideas are attempted, it’s important to engage the team, understand their current challenges and work to find a solution that will solve their biggest pain points first.

Augmented Reality and Wearables to Make BIM and VDC More Accessible

Augmented reality technologies, such as Google Glass, allow the user to see a digital image beside or on top of their view of the world. The use of these technologies in construction has the potential to make virtual design and construction and BIM more accessible onsite. Using GPS already present in most augmented reality technologies, users could sync their location data to a BIM model. In doing so, they would have the ability to see the 3D virtual view of the construction overlaid on the real-world view of the jobsite with the click of a button. An interesting area to keep an eye on are technologies that make BIM data easier to manipulate for non-BIM experts via one-click options and user-friendly design.

Near-Field Communications (NFC) to Gain Popularity

NFC is a secure form of data exchange that allows data to be transferred from physical tags to NFC-enabled devices. The technology is frequently discussed in relation to mobile payments (tap to pay and pay from a phone). This technology was just released as a part of the new iPhone 6 and is already present on many Android and Windows devices. As NFC begins to grow as a popular form of data exchange, expect to see many uses for it in construction, especially with materials tracking, prefabrication and workforce management. For example, NFC can be used to track prefabricated sections of large structures as they arrive onsite. Tracking these prefabricated materials can help quickly identify if an incorrect section has been delivered, or if parts are missing prior to installation—saving time and labour costs.

Augmented reality technologies, such as Google Glass, allow the user to see a digital image beside or on top of their view of the world. The use of these technologies in construction has the potential to make virtual design and construction and BIM more accessible onsite. Using GPS already present in most augmented reality technologies, users could sync their location data to a BIM model. In doing so, they would have the ability to see the 3D virtual view of the construction overlaid on the real-world view of the jobsite with the click of a button. An interesting area to keep an eye on are technologies that make BIM data easier to manipulate for non-BIM experts via one-click options and user-friendly design.

Near-Field Communications (NFC) to Gain Popularity

NFC is a secure form of data exchange that allows data to be transferred from physical tags to NFC-enabled devices. The technology is frequently discussed in relation to mobile payments (tap to pay and pay from a phone). This technology was just released as a part of the new iPhone 6 and is already present on many Android and Windows devices. As NFC begins to grow as a popular form of data exchange, expect to see many uses for it in construction, especially with materials tracking, prefabrication and workforce management. For example, NFC can be used to track prefabricated sections of large structures as they arrive onsite. Tracking these prefabricated materials can help quickly identify if an incorrect section has been delivered, or if parts are missing prior to installation—saving time and labour costs.

August 21, 2014

This article was written by Lauren Hasegawa, a structural engineering graduate with a background in concrete restoration and the Co-Founder of Bridgit.

Bridgit focuses on developing mobile-first solutions for the construction industry that help relieve on-site pain points, such as punch list management.

Lauren can be reached at lauren@gobridgit.com and 647-400-9948.

Truly Paperless Jobsites

Some good first steps towards achieving a paperless jobsite are cloud-based document management solutions such as Google Drive, Dropbox or Box, mobile apps that encourage digital instead of physical input of daily notes and the deployment of tablets or company smartphones onsite. However, since proper roll-out is contingent on full team buy-in, before any of the above ideas are attempted, it’s important to engage the team, understand their current challenges and work to find a solution that will solve their biggest pain points first.

Near-Field Communications (NFC) to Gain Popularity

NFC is a secure form of data exchange that allows data to be transferred from physical tags to NFC-enabled devices. The technology is frequently discussed in relation to mobile payments (tap to pay and pay from a phone). This technology was just released as a part of the new iPhone 6 and is already present on many Android and Windows devices. As NFC begins to grow as a popular form of data exchange, expect to see many uses for it in construction, especially with materials tracking, prefabrication and workforce management. For example, NFC can be used to track prefabricated sections of large structures as they arrive onsite. Tracking these prefabricated materials can help quickly identify if an incorrect section has been delivered, or if parts are missing prior to installation—saving time and labour costs.

Augmented reality technologies, such as Google Glass, allow the user to see a digital image beside or on top of their view of the world. The use of these technologies in construction has the potential to make virtual design and construction and BIM more accessible onsite. Using GPS already present in most augmented reality technologies, users could sync their location data to a BIM model. In doing so, they would have the ability to see the 3D virtual view of the construction overlaid on the real-world view of the jobsite with the click of a button. An interesting area to keep an eye on are technologies that make BIM data easier to manipulate for non-BIM experts via one-click options and user-friendly design.

Near-Field Communications (NFC) to Gain Popularity

NFC is a secure form of data exchange that allows data to be transferred from physical tags to NFC-enabled devices. The technology is frequently discussed in relation to mobile payments (tap to pay and pay from a phone). This technology was just released as a part of the new iPhone 6 and is already present on many Android and Windows devices. As NFC begins to grow as a popular form of data exchange, expect to see many uses for it in construction, especially with materials tracking, prefabrication and workforce management. For example, NFC can be used to track prefabricated sections of large structures as they arrive onsite. Tracking these prefabricated materials can help quickly identify if an incorrect section has been delivered, or if parts are missing prior to installation—saving time and labour costs.

Near-Field Communications (NFC) to Gain Popularity

NFC is a secure form of data exchange that allows data to be transferred from physical tags to NFC-enabled devices. The technology is frequently discussed in relation to mobile payments (tap to pay and pay from a phone). This technology was just released as a part of the new iPhone 6 and is already present on many Android and Windows devices. As NFC begins to grow as a popular form of data exchange, expect to see many uses for it in construction, especially with materials tracking, prefabrication and workforce management. For example, NFC can be used to track prefabricated sections of large structures as they arrive onsite. Tracking these prefabricated materials can help quickly identify if an incorrect section has been delivered, or if parts are missing prior to installation—saving time and labour costs.

Near-Field Communications (NFC) to Gain Popularity

NFC is a secure form of data exchange that allows data to be transferred from physical tags to NFC-enabled devices. The technology is frequently discussed in relation to mobile payments (tap to pay and pay from a phone). This technology was just released as a part of the new iPhone 6 and is already present on many Android and Windows devices. As NFC begins to grow as a popular form of data exchange, expect to see many uses for it in construction, especially with materials tracking, prefabrication and workforce management. For example, NFC can be used to track prefabricated sections of large structures as they arrive onsite. Tracking these prefabricated materials can help quickly identify if an incorrect section has been delivered, or if parts are missing prior to installation—saving time and labour costs.

Near-Field Communications (NFC) to Gain Popularity

NFC is a secure form of data exchange that allows data to be transferred from physical tags to NFC-enabled devices. The technology is frequently discussed in relation to mobile payments (tap to pay and pay from a phone). This technology was just released as a part of the new iPhone 6 and is already present on many Android and Windows devices. As NFC begins to grow as a popular form of data exchange, expect to see many uses for it in construction, especially with materials tracking, prefabrication and workforce management. For example, NFC can be used to track prefabricated sections of large structures as they arrive onsite. Tracking these prefabricated materials can help quickly identify if an incorrect section has been delivered, or if parts are missing prior to installation—saving time and labour costs.
SAFETY IN CONSTRUCTION

SAFETY TALK: Cold Stress

Winter’s upon us, which means that it’s soon going to start getting cold. Really cold. Unfortunately, construction isn’t the kind of business that stops for a rainy day or when the mercury plummets. That means that you and your workers need to be aware of cold stress, how to keep it from happening, and how to treat it if it sets in.

Cold stress is more than just frostbite—although that can be a concern. It’s a serious issue that can lead to hypothermia and even kill. Those working outside for long periods of time are most at risk of cold stress. The locations on site at which you work and the materials you handle can all contribute to cold stress, so it’s important to always be on guard.

One of the most common mistakes you can make about cold stress is to assume that it will occur only on the coldest days of the year. In fact, cold stress is entirely subjective. Someone who comes from a warmer part of the world can feel cold stress even when temperatures are near the freezing mark.

The Infrastructure Health and Safety Association published the following Safety Talk on cold stress in the November 2014 edition of its 2-Minute News. We’ve reprinted it here to give you the information you need to know to stay warm and stay safe during the cold winter months.

Explain the DANGERS of cold stress

When you’re cold, blood vessels in your skin, arms, and legs constrict, decreasing the blood flow to your extremities. This helps your critical organs stay warm, but you risk frostbite in your extremities.

**WIND CHILL**
The wind accelerates heat loss. For example, when the air temperature is \(-30^\circ C\),
- with 16 km/h wind (a flag will be fully extended) your skin can freeze in about a minute
- with 48 km/h wind your skin can freeze in 30 seconds.

**FROSTBITE**
This means that your flesh freezes. Blood vessels are damaged and the reduced blood flow can lead to gangrene. Frostbitten skin looks waxy and feels numb. Once tissue becomes hard, it’s a medical emergency.

**Treatment**
- Get medical aid.
- Warm area with body heat—do not rub.
- Don’t thaw hands and feet unless medical aid is distant and there’s no chance of refreezing.
- Body parts are better thawed at a hospital.

**HYPOTHERMIA**
This means your core temperature drops.

**Moderate symptoms**
- shivering
- blue lips and fingers
- slow breathing and heart rate
- disorientation and confusion
- poor coordination

**Severe symptoms**
- unconsciousness
- heart slowdown to the point where pulse is irregular or hard to find
- no shivering
- no detectable breathing
- resembles death—assume casualty is alive

**Treatment**
- Hypothermia can kill—get medical aid immediately.
- Carefully remove casualty to shelter. (Sudden movement can upset heart rhythm.)
- Keep casualty awake.
- Remove wet clothing and wrap casualty in warm covers.
- Apply direct body heat—rewarm neck, chest, abdomen, and groin, but not extremities.
- If conscious, give warm, sweet drinks.
Recommendations for Employers

The United States Centers for Disease Control and Prevention recommends that employers take the following steps to protect workers from the dangers of cold stress:

- Wear several layers of clothing rather than one thick layer to capture air as an insulator.
- Wear synthetic fabrics next to the skin to “wick” away sweat.
- If conditions require, wear a waterproof or wind-resistant outer layer.
- Wear warm gloves.
- Wear hats and hoods. You may need a balaclava.
- Tight-fitting footwear restricts blood flow. You should be able to wear either one thick or two thin pairs of socks.
- If your clothing gets wet at 2°C or less, change into dry clothes immediately and get checked for hypothermia.
- If you get hot while working, open your jacket but keep your hat and gloves on.
- Take warm, high-calorie drinks and food.

Recommendations for Workers

The United States Centers for Disease Control and Prevention suggests that workers should avoid exposure to extremely cold temperatures when possible. When cold environments or temperatures cannot be avoided, workers should follow these recommendations to protect themselves from cold stress:

- Wear appropriate clothing.
- Tight clothing reduces blood circulation. Warm blood needs to be circulated to the extremities.
- When choosing clothing, be aware that some clothing may restrict movement resulting in a hazardous situation.
- Make sure to protect the ears, face, hands and feet in extremely cold weather.
- Boots should be waterproof and insulated.
- Wear a hat; it will keep your whole body warmer.

(Hats reduce the amount of body heat that escapes from your head.)

- Move into warm locations during work breaks; limit the amount of time outside on extremely cold days.
- Carry cold weather gear, such as extra socks, gloves, hats, jacket, blankets, a change of clothes and a thermos of hot liquid.
- Include a thermometer and chemical hot packs in your first aid kit.
- Avoid touching cold metal surfaces with bare skin.
- Monitor your physical condition and that of your coworkers.

For more information on this and other safety-related topics, see www.ihsa.ca.
As we approach the new year, and the holiday parties that go with it, the construction industry has plenty to celebrate. Not only did investment in this sector surpass $300 billion in 2014—more than doubling its 2004 total of $140 billion—but a combination of new and upcoming projects, as well as continuing strong demand, give us reason to believe this good fortune will endure into 2015.

The average annual growth rate in this sector will likely sit between three and five percent in 2015 and beyond. When you consider the federal government’s recent decision to earmark $5.8 billion over three years for the construction and renovation of federally owned infrastructure projects, and the 600 resource projects already scheduled to be completed across the country over the next decade, this level of growth appears to be well within reach.

That said, there are definitely challenges ahead. Canada’s construction industry is facing a severe labour shortage—one that will have to be addressed soon if the industry hopes to achieve its projected rate of growth. Escalating housing prices will also affect construction trends. As more buyers are priced out of the Toronto housing market, communities like those in Grand Valley will have to adapt or risk losing out.

Looking forward to 2015—and beyond

While all signs point to a prosperous 2015, the construction industry must lay the groundwork for continued success in the years to come.

A Disappearing Labour Force

Over the next decade, approximately a quarter of the construction industry’s existing workforce will retire, according to BuildForce Canada—a trend that will result in a significant labour shortfall. During this same time period, demand for construction workers is expected to grow considerably.

At first glance, this may seem counter-intuitive. After all, between 1976 and 1999, a period of 23 years, the industry’s workforce grew by 86,400 employees, according to the Canadian Construction Association. In the 14 years that followed, it grew by a remarkable 580,000. Despite this growth rate, industry unemployment currently hovers at roughly eight percent, versus industry highs of 12 percent. That means the majority of construction workers currently in the workforce already have jobs. To fill the labour gaps likely to open as retirement rates rise, the industry will have to look elsewhere.

Approximately 300,000 new construction workers will be required by 2023, according to BuildForce Canada. While 167,000 of these workers will come from traditional training sources, the rest will have to come from other industries, provinces and countries. To attract out-of-province workers, labour mobility and migration legislation must be improved. This involves changing the labour mobility provisions of the Agreement on Internal Trade, implementing a mobility tax credit or other such incentive, and harmonizing apprenticeship training programs.

Immigration must also be strengthened. Steps are already being made in this regard with the new Expression of Interest system coming in 2015. This new legislation will make permanent entry into Canada much more responsive to labour market needs—but the construction industry requires a better answer to its short-term needs as well. With the recent announcement by the federal government to curtail the Foreign Worker Program, this will likely have implications on the construction industry. A stronger Temporary Foreign Worker Program would likely be that answer and, as such, should be at the top of the industry’s wish list.
As housing prices across the country maintain their hot streak, home buyers are feeling the pinch. Toronto, for example, reached a record-breaking average price of $546,303 in August—an 8.9 percent increase from the same period in 2013, according to the Toronto Real Estate Board—forcing a growing number of homeowners to flee the city in favour of more affordable areas.

Grand Valley is a notable beneficiary of this migration and, so far, the real estate industry is responding to this rising demand. In 2014, it saw a record-setting level of housing starts, with the $250,000–$300,000 price range being the most popular.

As building costs continue to escalate, however, developers will be forced to adapt if they plan to meet the needs of today’s price-crunched homeowners. Canada Mortgage and Housing Corporation expects a decrease in single-detached starts in the Kitchener-Cambridge-Waterloo area in 2015, largely due to the fact that building costs are too high to sell homes in the $250,000–$300,000 range.

Instead, developers will focus on townhouses and condominiums. While the number of new housing starts in these areas won’t be quite as high as the record-breaking pace they set in 2014, townhouse starts will remain stable in 2015 and condos are expected to remain strong in this area through 2016.

Since crystal balls don’t exist, no one knows for certain what the future may hold. One of the concerns in the market is that rising interest rates and debt load will result in lack of affordability, and we could see the softening of the market. Even with this possibility, 2015 should see another strong housing market. To ensure this prosperity continues, however, industry stakeholders will have to work together today to prevent the potential damage that insufficient labour and soaring house prices will cause tomorrow.

This article was written by Bo Mocherniak, national industry leader of the construction, real estate and hospitality practice at Grant Thornton LLP.

Aon is an advisor on over 85% of P3 projects in Canada.

Our local team is ready to empower results for the GVCA community.

Nikki Laskin, Account Executive
Aon Risk Solutions
Construction Services Group
t +1.289.313.2630
nikki.laskin@aon.ca

Risk, Reinsurance, Human Resources.

MTE Consultants Inc.
Kitchener  Burlington  Stratford
519-743-6500  905-639-2552  519-271-7952
www.mte85.com

Land Surveying Services for Contractors:
• Construction Layout
• Legal Boundary Surveys
• Topographical Surveys
• Volume Surveys
• As-Built Surveys
• Digital Terrain Modelling

This article was written by Bo Mocherniak, national industry leader of the construction, real estate and hospitality practice at Grant Thornton LLP.
GVCA SIGHTINGS

GVCA educational trip to Dubai

Images of Dubai showing various landmarks and activities.
GVCA SIGHTINGS

WinC Holiday Sparkler

GVCA's Economic Forecast Event
The new president of Canadian Construction Innovations (CCInnovations) says the organization will turn high-tech concepts into real products and services that contractors and developers can use to save time, reduce costs and improve profits.

“The results of our work will be tangible,” says Pierre Boucher, CCInnovation’s first president. “Owners, architects, engineers, manufacturers and suppliers, builders and the society at large will benefit.”

Appointed to this position in August, Boucher had previously taken the lead to establish the Institute for Building Information Modelling in Canada (IBC) and other initiatives through the Canadian Construction Association (CCA) over the last 20 years.

In his experience, the construction industry could do a better job of investing in and implementing advanced technologies and business processes. He points to a recent report from the U.S. Bureau of Labor Statistics, which said construction is the only sector that has decreased in productivity since 1964.

Boucher believes the Canadian construction industry is just as troubled as its U.S. counterpart.

“These are ongoing data that suggest we need to do things better—equip ourselves with the latest tools, and if the tools are not there, create them, whether they’re for scheduling, communication, sharing of data, or teamwork,” Boucher says.

He suggests that construction firms could be doing more. For instance, software companies already offer computer programs to help contractors identify and report project deficiencies. The challenge is to get businesses to use those solutions. “We have to push that within the industry so it becomes a common tool,” Boucher says.

Construction’s high-tech reluctance aligns with corporate Canada’s modus operandi—an approach that holds the entire country back. Boucher notes that the World Economic Forum (WEF) in September ranked Canada’s economy 15th out of 144 in terms of global competitiveness, down one spot from 2013, making for our worst showing since 2006. Low levels of private sector R&D hamper our economic performance. So does the fact that governments are slow to adopt advanced technology.

Boucher has witnessed that first hand. Governments manage buildings and properties poorly. “Many municipal governments don’t even have systems to capture the assets they have, and the maintenance programs required,” he says.

He adds that given Canada’s strong education system and stable economy, Canadian organizations should be further ahead with technology and innovation adoption.

Boucher calls on the industry to embrace new ideas. He believes people now entering the workforce are willing to do that. “I think the new generation is open to innovation,” he says. Young people understand the need to compete not only here in Canada, but also around the world in an increasingly global race to win contracts.

Boucher adds that GVCA members who would like to take part should contact him directly for more information: 613-688-2485, pboucher@ccinnovations.ca.
Back in 2009, the Canadian Construction Association (CCA) alongside Ryerson University and the National Research Council investigated the state of innovation in the sector. Their report, Roadmap to Research and Innovation in the Canadian Construction Industry—Towards a Change Management Strategy, was one of the driving forces behind the creation of CCInnovations, which aims to improve the use of technologies and best business practices among Canadian construction firms. That report also revealed a number of facts about the construction market. A few salient points:

- The sector saw a big boost in economic activity between 1999 and 2009, increasing from $49.1 billion to reach $74.9 billion. Construction came to represent 6 percent of Canada’s gross domestic product (GDP). The industry has generated a significant share of GDP since 1961.
- Productivity levels have, on average, improved across the full range of Canadian businesses since the 1960s, but productivity levels in construction have ebbed and flowed—and dipped noticeably in certain periods.
- Construction companies face numerous and equally challenging barriers to innovation. In a survey, 54.8 percent of construction-company respondents said lack of funding is the prime problem. But just as many (54.8 percent again) pointed to a lack of time. Fragmentation of research (48.4 percent), cost (41.9 percent) and regulations and standards (35.5 percent) rounded out the top-five difficulties.

### Three Steps Toward Construction Innovation

Pierre Boucher, president of CCInnovations, says this relatively new organization plans to tackle difficulties the construction industry faces with respect to adopting new technologies and better business operations. He outlines three prime focus areas for CCInnovations in the near term:

1. **Establish a Technical Council**
   Convene a group of construction experts— including contractors, builders and others—to guide CCInnovations’ work. The advisory board will help ensure the organization’s technology and business-improvement projects speak to real industry needs.

2. **Provide an Innovation-News Portal**
   “We want to create a one-stop shop where people can see what’s being commercialized,” Boucher says. The web resource will highlight construction R&D updates. Armed with this information, construction-company decision-makers will be able to envision how advancements might affect their businesses.

3. **Diversify the Membership**
   CCInnovations counts among its founders and funders the Canadian Construction Association (CCA), Clark Builders and Lafarge Canada. Boucher plans to help expand the list. The more companies that are involved, the stronger the organization’s financial backbone will be—and that spells additional resources for innovation projects, he says.

---

Rent it here.
From the biggest machines to the smallest tools, all it takes is one call to Battlefield Equipment and it’s done.

**BATTLEFIELD CAT Rental Store**

1-800-RENT-CAT
The day began with a keynote address from Mark Caseletto, vice-president and general manager of Reed Construction Data. Caseletto told the audience that Canada ranks among the best performing construction markets in the world today, adding that experts expect our national construction market to grow steadily and healthily for the next decade. For a detailed summary of Caseletto’s remarks, please see our companion piece, Construction Ahead on page 26.

Following Caseletto’s overview remarks, the discussion shifted to the discrete spending plans of some of the major local buyers of construction services. Purchasing authorities from the cities of Cambridge, Waterloo, Kitchener and Guelph, the Waterloo Region public and catholic school boards, Wilfred Laurier University, the University of Guelph and Conestoga College each presented their estimations of construction spending in 2015.

By and large, the news they shared was good. (See below for a detailed discussion of each purchaser’s spending plans.) Non-residential building, infrastructure renewal and expansion, transit and waste water and water treatment will be the drivers of construction spending over the next 10 years.

The presenters’ remarks serve to support what experts are already saying about our regional economy in 2015: that it will be one of the fastest growing economies in the country in 2015.

Get ready, GVCA members!

“\text{This year, we have seen an increase in newer construction and larger additions, and 2015’s outlook appears similar.}”

– Hardy Bromberg, City of Cambridge
Economic Forecast: Region of Waterloo

Ken Seiling, chair of the Region of Waterloo, said that while population growth was down in the region (typically the region attracts between 8,000 and 9,000 new residents annually; 2013’s total, however was closer to 5,500), the region remains one of the municipal areas in the country that experts suggest will grow healthily.

In terms of specific spending plans, Seiling said the region has about $1 million set aside for spending on sewer and water upgrades and plants. Over the next 10 years, its annual capital spend is expected to total $3.9 billion. That figure includes underground work, as well as construction and renovation of new and existing building assets. Two projects in particular that could come on line in the near future are the expansion of the region’s waste management centre, and construction of a new $73-million Grand River Transit garage.

Economic Forecast: City of Kitchener

Chief administrative officer Jeff Willner told the audience that the city plans to spend about $40 million on engineering projects in 2015. Most of that money will be directed to new road construction and re-construction of assets such as sanitary sewers, roads, water mains, bridges and storm water infrastructure. Some of the more noteworthy projects on the city’s to-do list include underground utility relocations to support the light rail construction (valued at $6 million for a 10-kilometre stretch), the reconstruction of the Margaret Avenue bridge (with $4.5 million), and upgrades to the Freeport Sanitary Pumping Station ($8 million).

Meanwhile, the city’s facilities management department has a budget of $2.5 million to spend on construction in 2015. Most of that money will be spent on several interior renovation and HVAC upgrade projects at City Hall. Finally, the city’s budget for construction on active parkland increased by $2.1 million for 2015. Planned projects include $1 million for grading and storm water management work at the South District Park and $1.4 million for the rehabilitation of Upper Canada Park.

Economic Forecast: City of Waterloo

Purchasing manager Tracie Bell and her colleague Ron Ormon, director of engineering and construction, gave a detailed summary of the City of Waterloo’s construction spending plans for 2015.

The city’s capital budget is approximately $68 million. The city expects to allocate about 70 percent of that total to road, water, sewer and stormwater projects.

The balance of Waterloo’s capital budget will be spent on the following building projects:

- service centre expansion (estimated construction budget of $10 million)
- various facilities energy retrofits (estimated at $3.5 million)
- Canadian Clay and Glass Gallery Renovations (estimated at $750,000)
- RIM Park indoor artificial turf (estimated at $600,000)
- WMRC Swimplex renovations (scheduled for winter and spring 2015)
- Waterloo City Hall solar panel expansion (scheduled for spring 2015)
Economic Forecast:

**City of Cambridge**

Commissioner of planning and development Hardy Bromberg told members that the value of building permits issued by the City of Cambridge in 2014 is on track to blow previous totals out of the water. Where totals for 2011 and 2012, for example, averaged around the $150-million mark, 2014’s annual construction value to date—that is, through October—is $341 million. Bromberg added that he expects more of the same in the city in 2015.

“The number of permits issued over the past four years is relatively consistent,” he said. “We found more emphasis on renovations, upgrades and minor additions in 2011 and 2012. This year, we have seen an increase in newer construction and larger additions, and 2015’s outlook appears similar.”

---

Economic Forecast:

**Wilfrid Laurier University**

Mark Dettweiler, director of planning, design and construction, explained that the university has one major project underway, and several more planned.

Work is already well underway on the Waterloo Campus’s two-phase Global Innovation Exchange project. Phase 1 sees construction of a new 215,000-square foot building to house the School of Business and Economics and the Department of Mathematics. That project has a $66-million construction budget, and is expected to be finished in the fall of 2015.

Phase 2 is the Peters/Schlegel Building retrofit and renovation. The university has earmarked $10 million for the project’s construction budget, and the job is expected to be tendered in fall 2015 for construction in 2016.

Also planned for construction in 2015 is the Brantford Athletic and Recreation Centre. The 148,000-square foot building will include three gymnasias, a swimming pool, and a fitness centre. Built in partnership with the YMCA, the building has a $44-million construction budget. Phase 1 of project is currently underway, while Phase 2 is in the final stages of contract document preparation.

---

Economic Forecast:

**Conestoga College**

College president John Tibbits explained that the college has a number of projects planned in the foreseeable future. It plans to spend between $10 million and $20 million on work at its Cambridge Campus, between $3 million and $5 million annually at its Doon Campus, and $20 million to $25 million on a new Guelph site.
Economic Forecast: University of Guelph

John Vanos, a manager with the university’s design, engineering and construction purchasing centre, explained that he and his colleagues manage about 200 projects worth a combined $275 million. Over the next five years, he said the university plans to spend anywhere between $38 million and $53 million between major projects, such as small and large new builds, and capital renewal projects, which include upgrades and repairs to existing building systems.

Notably, the university will spend less money in each of the next five years on new builds and more on capital renewal projects. The reason for this, said Vanos, is that the university has a major energy-renewal project underway that will require significant work on mechanical and electrical systems, for example.

Economic Forecast: Waterloo Region District School Board

Stephen Case, manager of purchasing, distribution and risk services at Waterloo Region District School Board, told the audience that the board plans to spend about $75 million in new construction and renewal work in 2015.

Projects include Westmount Public School in Kitchener, which is under construction, four new schools at the tender stage: New Elmira Riverside Public School in Elmira, New Groh Drive and Chicopee Hills Public Schools both in Kitchener and New Vista Hills Public School in Waterloo; and 35 small to medium projects at various sites within the Waterloo Region.

Economic Forecast: Waterloo Catholic District School Board

Jeff Admans, manager of supply and administrative services indicated that the school board plans to spend about $12.5 million on three projects in 2015: additions and renovations to the Holy Spirit and St. Anne schools in Cambridge and St. Aloysius in Kitchener, the total value of all of which is around $8 million; additional facility support for full-day kindergarten at St. Mark and possible St. Dominic in Kitchener, which could be worth $500,000 combined; and capital improvements to various locations totaling $4 million.

---

RBC Dominion Securities Inc.

SET YOUR BUSINESS UP FOR LONG-TERM SUCCESS

It’s never too early to start thinking about business succession:

- How can you maintain family harmony?
- Should you sell or pass the business on to your children?
- How can you protect yourself from unexpected events?

A professional with 20 years of experience at RBC Dominion Securities, Erica can help you and your family answer these questions and more. To arrange a consultation, contact her today.

ERICA TENENBAUM, CFP, FCSI
Vice President, Wealth Advisor and Associate Portfolio Manager
519-621-1307
erica.tennenbaum@rbc.com
www.ericatennenbaum.com

---

RBC Dominion Securities Inc.* and Royal Bank of Canada are separate corporate entities which are affiliated. *Member-Canadian Investor Protection Fund. RBC Dominion Securities Inc. is a member company of RBC Wealth Management, a business segment of Royal Bank of Canada. ®Registered trademarks of Royal Bank of Canada. Used under licence. © RBC Dominion Securities Inc. 2014. All rights reserved.

---

GVCA Journal  WINTER 2014  25
reed Construction Data vice-president Mark Caseletto gave attendees at the GVCA’s Economic Forecast event some insight into forecast trends for our industry in the next two to three years. And the news is good.

The GVCA’s Economic Forecast event on November 12 led off with a keynote address from Mark Caseletto, vice-president and general manager for Reed Construction Data. Caseletto focused his remarks on the drivers of the global construction market. His conclusion: Canada’s annual construction spend next year will be the fourth largest in the world—which is particularly impressive given our comparatively small population—and will continue to be strong for the next 10 years.

Driving a great deal of that growth, of course, will be major resource construction projects. Here in Ontario alone, projects worth hundreds of millions of dollars are planned or already in the ground in areas such as mining, electricity and oil and gas. The largest among these include the Black Thor Chromite Deposit mine in Kenora, which is valued at $3.3 billion, and the Eagle’s Nest mine (also in Kenora), valued a $1 billion. Work is also planned or underway on such jobs as the Eastern Mainline Pipeline Project, which begins in Markham and is valued at $592 million, and the Marmora Pump Storage project in Mamora, which is valued at $660 million.

Additional transportation-sector projects—such as Toronto’s Eglinton Crosstown LRT project ($2.2 billion), the Detroit River International Crossing ($1 billion), and the Sheppard East Corridor expansion of the TTC ($950 million) – will further contribute to growth in Ontario.

In part as a result of such activity, Canada’s real GDP growth in the next three years is expected to climb by between 2.5 and 3.2 percent annually.
The forecast for other indicators of growth, such demand for non-residential structures (up between 2 percent and 6.2 percent annually), exports (up between 3.6 and 4.5 percent), and the unemployment rate (annual rates of between 6.3 and 6.9 percent) is also positive.

Of course not all of the construction work to be performed in the short and medium terms will be of the massive variety. Ongoing smaller projects—the kind of work on which many GVCA members depend—will matter too.

Signs suggest that housing starts nationally are trending at a steady rate. Annual starts in Ontario will dip slightly between 2014 and 2015, before growing again in 2016. The national totals follow much the same pattern, as do starts in the GTA and a number of other major urban centres.

Nationally, commercial construction starts are expected to trend upward in each of the next three years—and much the same pattern is forecasted for commercial starts in Ontario in particular.

Overall, Reed Construction Data expects demand for non-residential buildings to rise by almost 33 percent between 2014 and 2016; demand in Ontario is expected to jump by almost 66 percent over the same period.

Finally, Reed’s forecast for engineering projects also appears strong. Spending nationally is expected to crest $292 billion in 2014, before growing over $300 billion in 2015, over $319 billion in 2016 and $340 billion in 2017. Worth noting is the fact that Ontario will be the second-largest market in the country for engineering projects—after Alberta.
In the most recent edition of its Construction and Maintenance Looking Forward report, BuildForce Canada suggests that construction employment in Ontario will continue to grow over the next 10 years. Indeed, the organization estimates that our provincial construction industry will need to recruit more than 37,600 workers from other markets to meet local requirements.

According to the BuildForce report, construction work in the GTA will put the greatest strain on the provincial construction workforce through 2023. While work in other regions of the province—the North and Southwest in particular—will flare up for brief periods and then fall quiet. Employers in our Central region will benefit from steady growth of between plus or minus two percent over average annual rates. BuildForce estimates that a sharp jump in residential construction will briefly tighten the labour market for such trades in the next few years, but on balance the market will perform consistently. The challenge for our employers is the push and pull factors that will draw migrant construction workers away from our region and into the various hotspots that flare up across the province over the forecast period.

“These changes leave the construction industry with a complex human resources planning challenge,” reads the report. “Each Ontario region will have a mix of local, skilled trades working in other provinces and non-residents working locally. It will be important to attract or retain a net, permanent

W

ith all the construction activity planned for our region—and the neighbouring Greater Toronto Area—between now and the late 2010s, don’t be surprised if your company has a hard time finding local construction workers.
addition in each market. Training and retaining all the workers needed locally is a priority. Some of this new workforce will come from the current population of non-resident workers. At the same time, the industry must recruit new construction workers from each regional population to fill the larger recruiting complement for retirements. All this must be managed in the broader context of competing demands for construction workers in other provinces.”

Central Ontario: Growth Through 2017, Competing for Workers With GTA and the Southwest

Demand for workers in our region will be concentrated in the first part of the BuildForce forecast period. Specifically, between now and 2017, when cyclical demands associated with major engineering projects such as light rail will test the local workforce.

The other challenge for our area is proximity to two regional hot spots. According to BuildForce, “there is a small surge in non-residential construction in the Southwest, where highway, bridge and utility work is scheduled from 2014 to 2017. These projects add more than 3,000 jobs, rising to a peak in 2017 and then subsiding. These gains coincide with a housing cycle, and labour requirements exceed the available local workforce in most trades and occupations.”

Additionally, BuildForce expects the GTA to become a major hub of construction activity through the early 2020s.

“Projects [planned between 2014 and 2019] include “The Big Move” improvements to the transit system and the refurbishment of the Darlington nuclear facility. Again, the timing is uncertain, but these are among the largest engineering projects announced in Canada and their sizes mandate that work be spread across most of the scenario period. In many cases, project plans suggest that activity will peak as late as 2019. This leaves the GTA with rising labour requirements and potentially tight markets late in the scenario period.”

Thus, employers may have to consider attracting new workers from non-traditional labour sources, or finding new ways to convince workers to stay in our region.

Trades in Demand

Which trades are in demand? BuildForce says it’s those most commonly used on commercial and industrial building projects, since these are the sources of work that are most stable and less prone to the peaks and valleys associated with big engineering projects, for example.

Commercial activity is expected to rise in all regions of the province, as is industrial-sector activity. The combined strength of growth in these components is expected to offset weaker and more cyclical demand for institutional projects. The market for schools, hospitals and other such projects was strong between 2007 and 2011. BuildForce expects demand to decline through the early part of its forecast scenario before rising in the middle to latter stages as new infrastructure investment becomes a government priority.

Those trades in greatest demand, says BuildForce, are boilermakers, construction millwrights, electricians, elevator installers, floor covering installers, glaziers, painters and decorators, plasterers and drywall installers, plumbers, refrigeration and air conditioning mechanics, roofers and shinglers, and tilesetters.

Does your company pay living wages?

The GVCA recently threw its support behind the Living Wage policy, a social initiative that encourages employers to pay their workers enough money to cover their families’ basic expenses.

Living wages differ from community to community, and are calculated based on a family of four with both adults working full-time, year-round at 37.5 hours per week. The living wage includes expenses such as food, clothing, shelter, childcare, transportation, medical expenses, recreation and a modest vacation. It does not include retirement savings, debt repayment, home ownership, savings for children’s education, or anything other than the smallest cushion for emergencies or hard times.

Waterloo Region’s current living wage rate is $16/hour for employees that do not receive any non-mandatory benefits.

“Fortunately, most of the construction industry meets this living wage,” says GVCA president Martha George, “but if you know workers who do not (or those of your subs), it’s time to step up to this (low) benchmark. We want our community to eradicate child poverty and that starts with living wages for parents.”
Demand for new single-family homes won’t be high in our area in 2015 and 2016, but Canada Mortgage and Housing Corporation expects multi-unit towers to spring up along the light rail line in particular.

It’s steady as she goes as far as the region’s housing outlook is concerned. In its latest forecast for the local housing market, Canada Mortgage and Housing Corporation (CMHC) says housing starts in the Kitchener-Cambridge-Waterloo (KCW) area will remain at or around historical averages through 2016. Guelph’s market is considered slightly more volatile, yet nonetheless productive.

In terms of the KCW market, CMHC forecasts 2,755 housing starts in 2015 and about the same again in 2016. Many of the starts in those totals will come from apartment buildings and other forms of multi-unit construction. Indeed, CMHC forecasts single-family starts to hover somewhere between 700 and 800 units through 2016. There are several reasons behind this trend. The cost to build single-family homes is driving developers away from producing affordable models. What’s more, developers have a slight build-up of unsold inventory, which is further causing them to consider scaling back construction next year and beyond.

All this is good news for condominium and apartment builders. According to CMHC, condominium starts will be strong through 2016. Developers have already snapped up most of the land along the light rail route in anticipation of building new mixed-use towers. Condominium starts are already well underway and more are planned for next year. As a result of increased condominium construction, rental apartment starts are expected to fall back. CMHC forecasts that the student-housing buildings already under construction and those few planned additional projects will be sufficient to meet demand in this market segment.

In all, CMHC is bullish about the KCW region. The local economy is on track to support housing demand through 2016. Employment growth is expected to increase by two percent in 2015, while established and start-up technology companies are creating new jobs. Additionally, says the CMHC’s Fall 2014 Housing Market Outlook,
“both residential and non-residential construction projects will create jobs in 2014 and in the years ahead, boosted by commercial and apartment construction near the LRT. In addition to greater employment in non-residential construction, manufacturing employment is expected to continue to increase.”

**Guelph: Starts Lower in 2015**

Although CMHC expects home starts to fall in Guelph in 2015, it’s only fair to mention that 2014 was among the busiest years for home starts in the city in a decade. Starts in 2015 and 2016 are expected to float around the 800-unit mark, figures that are more in keeping with historic trends. Of those totals, slightly less than half are expected to come from the apartment and condominium segment.

Apartment starts will be lower in 2015 as developers try to sell off existing inventory before building anew. Yet there is an appetite for many residents to buy such units. Resale prices are growing at between four and five percent annually, which is causing demand for new multi-unit structures. Empty nesters and students are also pushing demand for multi-unit properties.

According to CMHC, Guelph is well positioned for growth in 2015, particularly as the United States economy grows and the Canadian dollar weakens. Such trends should help employers in Guelph’s manufacturing sector. CMHC also expects the construction sector to add jobs.
Yet more can always be done to improve the delivery and application of safety programs. Construction is a particularly high-risk industry, and stubbornly accounts for about 30 percent of the traumatic workplace-related fatalities in the province in a given year. It’s no secret that the Ministry of Labour and its Prevention Office have targeted our industry in particular to effect real changes in the way health and safety training is delivered by providers and used by workers on site.

As many as three new safety training programs and policies for everyday workers could come into effect in 2015. And if you work in construction, you will undoubtedly be affected by at least one.

Ontario has one of the most advanced occupational health and safety systems in North America. In 2012, Ontario had the lowest allowed lost-time injury rate in the country, at 1.01 per 100 workers.

New safety training programs in 2015.

Get Safe(r), Ontario!

Three new safety training programs and policies could go live on Ontario construction sites in the next 12 months.
Joint Health and Safety Committee Training

The Ministry of Labour last updated its requirements for specialized training for joint health and safety committee members in 1996. Its new program and provider standards, which were released in May, have been created to promote the high quality and consistent training of certified JHSC members. When they go live, which is expected to be some time late next year, the new standards will include part one training that would be generic to all workplaces where certified JHSC members are required, regardless of sector, and part two training that would be sector-specific.

Part of the challenge with the existing JHSC standards was that many members stopped their training after completing part one. That meant that the issue of dealing with many sector-specific hazards was largely ignored. The new part two training will focus on the concepts of recognition, assessment and control of hazards, and evaluation of the hazard controls for a minimum of six sector hazards, and those who complete part one training will be required to complete at least some of part two. Retraining every three years will be a new requirement of this standard.

Working at Heights

Everyone remembers the horrific swing stage collapse that occurred on Christmas Eve in 2009 and which killed four workers. Among other things, that accident drew a hard line under the fact that falls continue to be among the construction industry’s biggest killers. To that end, the Ministry of Labour has released a new standard for working at heights that will require all workers who use fall protection systems to complete an approved training program that meets the requirements of the working at heights training program standard established by the Prevention Office. The standard aims to elevate the importance of preventing falls from heights, provide workers who may be exposed to fall hazards with general safety practices to work safely at heights, give workers who use personal fall protection equipment sufficient knowledge about its purpose and use, and reduce the number of fall-from-heights incidents, injuries and fatalities.

The standard is expected to go live late in the first quarter of 2015 or early in the second. It will apply to anyone who works at heights with a particular focus on the needs of vulnerable workers. It will also offer supports and tools to help small contractors to come into compliance.
Get Certified

On the topic of getting safer, why not make 2015 the year your company gets the COR ball rolling?

As most people know by now, COR is the Certificate of Recognition program that came to Ontario in 2012. It is a nationally recognized tool that employers can use to assess their health and safety management systems.

COR is already recognized as a standard for health and safety in other parts of the country, and is poised to assume a similar role in Ontario in the near future. Already some major buyers of construction services such as Infrastructure Ontario and the Toronto Transit Commission require contractors to be COR certified as a condition of contract. More owners are expected to follow suit, and in the not-too-distant future, general contractors may start requiring their subtrades and suppliers to be COR certified.

Beginning in February, GVCA is offering its members two particular supports to get COR certified. The first is a members-only training session led by an instructor from the Infrastructure Health and Safety Association (IHSA), the agency that administers the COR standard in Ontario.

The second is a Program of Support aimed at helping members work through the process of meeting COR’s elements and, vitally, preparing for the desk and site audits that lead to certification. The Program of Support will be led by Ellaline Davies, the president of Safety Works Consulting Inc., and the facilitator of the GVCA’s Safety Groups program.

“Our goal with the Program of Support is to get people moving along the path to becoming COR certified,” says Davies. “We want to give them the help and guidance they need to be successful in this process.”

Getting COR certified is a big job, particularly for small to medium-sized companies that may not have the resources to devote to the endeavour. Davies, who is a trained auditor, wants to help make the process easier for such companies.

“If you’re a company that’s thinking about getting COR certification, I’d recommend you get on this train now,” says Davies. “COR is only going to become more widespread as the years pass, and if you’re at the point where you want to grow your business or find new clients, COR may help unlock doors. I don’t think COR is going away and the earlier you start this process, the better off you’ll be in the long run. After all, COR doesn’t happen overnight.”

If your company is interested in taking the GVCA’s COR training program and joining the Program of Support, act now. There are fewer than 20 spaces available for members in each program, and these spots will sell out fast.

For more information, contact the GVCA offices.

The 2015 GVCA Safety Group: Apply Today!

If your company has been sitting on the fence about whether to join the GVCA’s Safety Group, you’d better act soon. Time is running out to register for the 2015 group. The GVCA is accepting applications only through December 31.

There are many reasons why you’d join a safety group. The most obvious is to create a health and safety management system that’s tailored to your company’s precise needs. In turn, this helps reduce the risk of accidents and cut the premiums you pay to the Workplace Safety and Insurance Board.

The other great reason to join: a potential reduction in your WSIB premiums. Members that successfully complete the program may receive rebates of up to six percent on their annual premiums.

GVCA’s Safety Group has consistently been among the top performers in the province. The 2013 group was the highest scoring construction group in Ontario. It earned a score of 5.84 percent out of a possible six percent—and a total rebate of $477,193 that was shared among 54 members.

For more information about the GVCA’s Safety Group program, or to learn about Safety Group Lite—a streamlined, no-commitment version of the full Safety Group, but without the rebates—contact sarah@gvca.org or 519-622-4822, ext. 120.
FOR THE BETTERMENT OF THE MECHANICAL CONTRACTING INDUSTRY.

Aecon Industrial
Alltrade Industrial Contractors
Class Controls Ltd.
Conestogo Mechanical Inc.
Culliton
Dave Hurst Plumbing & Heating Inc.
Dean-Lane Contractors Inc.
Dunbar Mechanical Services Inc.
Energy Controls & Mechanical Services Inc.
Evans Industrial Installations Ltd.
Kinlo Mechanical
Kittel Mechanical (2003) Inc.

MWS Solutions Inc.
Modern Niagara Toronto Inc.
Nelco Mechanical Ltd.
One Source Mechanical Inc.
R & R Mechanical Group Inc.
Resource Industrial Group Inc.
Rite Way Mechanical Ltd.
Roberts Onsite
State Group Inc. (The)
Sutherland-Schultz Inc.
Trade-Mark Industrial Inc.
WS. Nicholls Construction Inc.

Mechanical Contractors Association Kitchener-Waterloo

206-420 Weber St N, Waterloo ON N2L 4E7 Tel: 519.885.0431
www.mcakitchener-waterloo.com
Wherever he works, Chris Henderson has a knack for creating growth. When he joined BNE Contractors in 2004, he put the company on a fast track to success, and the business has been expanding ever since.

Chris Henderson, president and owner of BNE Contractors Inc. joined the company as general manager in 2004. Prior to that, he worked for 10 years in the automotive industry as the general manager of Plastico Industries where he built the business from sales of $125,000 in 1994 to $10 million in 2004. Originally educated with a business degree in accounting, Henderson was looking for a position in a company with the opportunity for succession.

Eckhart Reichenbach, originally a Stonhard salesman, left the business in the late 1980s to start his own business. BNE was founded in 1991 and first operated out of two chicken barns in Bamburg, Ontario. By 2004 it had outgrown its mom and pop beginning. Although Reichenbach knew he had the right structure in place, he realized he needed to add some new key team members to take the company to the next level.

After initial meetings, the two men realized that the partnership would be powerful. Each partner would bring complementary strengths to the table. Reichenbach was a great salesman and Henderson knew how to grow a company.

“You have to have good people to grow a company so we had to do some major restructuring,” says Henderson. “Once we got going in a new direction with key staff team members in place, BNE grew by 25 percent in 2005 and by 30 percent in 2006.”

“Reichenbach was always ahead of his time. He thought there was a better way to maintain concrete flooring. He went to the World of Concrete show in Las Vegas in 1999 and he talked to manufacturers there to find out if there was a way to harden concrete and polish it.

Reichenbach wanted to provide clients with alternatives to coatings because every year facilities would have to recoat their floors. It was expensive and resulted in excessive down time at plants.”

Manufacturers were working on a new technology. In 2001, Advanced Floor Products in Utah was one of the first companies to bring concrete densifiers to
the market which allowed concrete to be polished. This system is called the Retro Plate System and remains a leading system in the market today. This new concrete flooring system was cost effective, offered more resistance to abrasion, provided elimination of dusting, was LEED friendly, required less maintenance and was good for as many as 10 years.

“BNE Contractors were the first applicators to use the Retro Plate System in Canada and the second to use it in North America,” says Henderson. “But you still have to sell it to the industry. Really the beginning of convincing clients came in 2005 when ATS in Cambridge called us in for advice. Their four-year old concrete floor was filthy, stained, chipped and peeling so we did a 100 square foot test patch utilizing the Retro Plate System technology. ATS was absolutely wowed. We completed work on their 66,000-square foot concrete floor. It was a big job for us at the time. To this day we use this case study to sell our product.”

Since then, BNE has worked on some very large jobs but none was larger than the $1-million restoration project at the Ford Motors plant in Oakville. The company removed quarter-inch epoxy in the plant’s aisles and polished the concrete floors using the Retro Plate System. BNE completed work on 195,000 square feet of concrete flooring over two years taking crews in each Friday night and working double shifts until Sunday night.

“We are a very specialized company with a great capacity to handle jobs that are a 9 or 10 on the scale of difficulty,” says Henderson. “We have done work all across Canada. With respect to doing work in the United States we have mostly partnered with US firms in joint ventures, and conversely US firms have partnered with us in joint ventures for work done in Canada.”

Their hottest market for growth is retail as many store chains and shopping malls are converting to polished concrete in their high traffic areas. Decorative stains are now being used regularly with concrete polishing providing further flexibility in design for architects.

BNE has also started using a new product: a steel re-enforced trowelled epoxy for heavy abuse environments. They recently completed a project for Goldcorp in Timmins using this technology on a mining shop concrete floor where trucks can weigh up to 250,000 pounds. Interestingly this technology was first developed for dairy milking facilities as cows get very anxious during the milking operation; with the constant shuffling their hooves create extensive wear to the concrete flooring.

Asked what he thought had contributed the most to their successful growth, Henderson says, “we are a very specialized company which has done a good job of marketing to end users and we tend to promote our company in publications where our competition does not. We gained the Ford job because an executive read an article about us in Plant Magazine. Our competitive advantage is our people. We have some of the best trained professionals in our industry.”

“Our strategic advantage is our quality for sure,” adds operations manager Paul Giangualano. “We have an owner who believes in continual investment in our company. Consequently we have a very large fleet of the latest and best equipment at our disposal. We are head and shoulders above our competition in terms of what we leave behind. When issues arise, we go right back to the customer and immediately solve them. I think this speaks to our integrity and reputation.”

BNE is expected to grow by 30 percent in 2015 and will reach $10 million in sales in the next two to three years.
Industry members gathered at a special forum held by Cowan Insurance in Kitchener on November 18 where an expert panel led a discussion on public-private partnerships (P3s).

Marianne Micci-Fritz, surety development manager, commercial lines at Cowan, provided attendees with background on how P3s developed not only in Canada but also around the world, while Kevan Thompson, industry leader and vice-president construction at Cowan, moderated the panel.

"What we do the most is organize partnerships," said Morley. "Our role is to work with the client to develop the functional program and output specifications for the project. To do market samplings and understand the best way to bring it forward to have a competitive bidding process. We want to create a level playing field and be reasonable people that the private sector can work with."

Morley added that IO hires “budget and design consultants to ensure projects will be well planned and then we take it through the RFQ and RFP stages. We also do a great deal of work in the risk management and risk allocation area, which is described in our value for money analysis document.”

Bird Construction:
Joint Ventures Can be Points of Entry
Paul Raboud, vice-chair for Bird Construction Inc., brought forth a general contractor’s point of view. His advice to those looking to break into the P3 business: form a joint venture with a partner who is experienced in the P3 marketplace and has a substantial balance.
Local knowledge and expertise is of great value in the P3 world and that is what local general and trade contractors are going to bring to the table. Contractors also need to have the security requirements and the ability to line up the necessary financing.

“A joint venture is very much like a marriage,” said Raboud. “You have to have a strong cultural and relationship fit with your partner and determine what your appetite for risk is. You need to be closely aligned with your partner as to how decisions will be made and how you will structure your joint venture. You need to do your due diligence.”

P3 projects are riskier, more complicated and more expensive to bid than conventional projects. Raboud estimates the cost of bidding to be approximately one half to one percent of the project's capital cost—and success is not always guaranteed.

Gowlings:
Legal Agreements Must be Wide-Reaching

Ted Betts, a partner at Gowlings and a certified specialist in construction law, focused on the fact that P3 projects are very complicated and include a lot of different parties with contractual agreements. These agreements have to address every contingency that could arise and provide a process or mechanism for addressing that change. It is important to keep in mind that the work on the facility side of some of these projects can last for as many as 20 to 30 years.

Standardized contract documents, such as those created by the Canadian Construction Documents Committee and the Canadian Construction Association, can help all P3 parties save a great deal of time and trouble when it comes to, for example, building joint-venture arrangements.
The Ministry of Labour's Chief Prevention Officer has released a Working at Heights Training Standard. It lays out what each worker needs to learn when taking mandatory working at heights training.

IHSA's Working at Heights—Fundamentals of Fall Prevention is a robust program that meets the purpose of the new standard.

Learn to teach IHSA's Working at Heights course yourself. Take our Working at Heights instructor Workshop to become an IHSA-registered instructor.

Together we can stop falls from killing Ontario workers.
Guarantee Company of North America: P3 Securitization is Complex

David Smith, senior vice-president and head of Canadian surety for The Guarantee Company of North America, provided insight on P3 project security from a bonding perspective. He said that securitization of P3 projects has become very complicated particularly since these projects are getting larger and are taking place over a longer duration.

The P3 performance bond—a product created in part by Smith—is not unlike a traditional performance bond that represents half of the contract value and guarantees completion of construction by the contractor. The bond also has an added liquidity component which is similar to a line of credit. With this liquidity component, the surety pays on demand up to a specific amount—around five or 10 percent of the contract value depending on the amount of security the lenders are looking for on the specific project.

IO recently announced that it will accept the P3 bond for build finance and design build bonds.

“If you are thinking of getting into the design build box of a P3 structure,” said Smith, “you have to build your balance sheet, build your cash or align yourself with a joint venture partner that brings this financial strength to the design build team.”

Zurich Insurance: How Much Capacity is Enough?

Rajiv Joshi, vice president, construction for Zurich Insurance Company, listed some of the types of insurance services that are available for P3 projects.

“One of the biggest issues facing the insurance community is having the capacity to take on huge P3 projects that could be operational for 20 or 30 years,” he said. “As insurers, we have to decide how much capacity we are able to put up. Most insurance policies on the operational side are one year and sometimes they are negotiated for two years.”

The P3 performance bond has an added liquidity component that is similar to a line of credit.

Since many insurers do not write all lines of insurance, Joshi said he expects it will be a major challenge for a broker to underwrite all of the required lines of insurance for a P3. Claims management will also be challenge given the long time span, so insurers need to get to a comfort level around the expectations for a P3 project.
**EDUCATION CALENDAR**

**January 14**  
Occupational Health and Safety Act Training

**January 21**  
Introduction to Lean Construction (B-Lean)

**January 22**  
Social Networking in Construction – One Gold Seal credit

**January 23**  
Gold Seal Examination

**January 27 - February 17**  
Entrepreneurial Leadership Series

**February 4 & 11**  
Construction 101 – Two Gold Seal credits

**February 4 & 5**  
Microsoft Project for Construction – Two Gold Seal credits

To register, or request additional information please contact admin@gvca.org or call 519-622-4822 X120

---

**EVENTS CALENDAR**

**January 17**  
1st Annual GVCA Curling Bonspiel  
Westmount Golf and Country Club

**January 15 & 16**  
Safety Group Meetings

**January 22**  
Leaders in Construction New Year Kick Off:  
Bowling and Dinner  
Boston Pizza Kingpin – registration required

**February 17**  
GVCA Annual General Meeting  
Hall of Fame Induction  
Business Heritage Awards  
Holiday Inn, Kitchener

**February 19**  
GVCA Annual Ski Day  
Osler Bluffs, Collingwood – registration required

---

Running a construction business is a difficult job at the best of times, but it’s doubly complex in today’s world. That’s why the GVCA has teamed up with Conestoga College to offer a certificate program on entrepreneurial leadership in construction.

Designed for senior leaders in our industry, the four-day program offers practical insights for dealing with risks, building competitive advantage, and achieving strategic growth.

Participants will learn how their leadership skills impact employees’ motivation, team performance, and the overall workforce satisfaction. You will also discover approaches for negotiating partnerships and strategic alliances that facilitate access to global markets.

Spaces in the program are in short supply, so register today. For more information, contact Martha George at 519-622-4822 or mgeorge@gvca.org.

---

**ADVERTISERS’ INDEX**

ACL Steel Ltd. …………………… 2  
Albrecht Reinforcing Inc. ……… 5  
Altruck International Truck Centres … 41  
Aon Risk Solutions ………….. 17  
AQ Group Solutions ………….. 43  
Ball Construction Ltd. ……….. 7  
Battlefield Equipment Rentals … 21  
Baywood Interiors Ltd. ……….. 26  
BNE Contractors Inc. …………. 33  
Carrier Canada Limited ……….. 11  
Conestoga Roofing & Sheet Metal Ltd. ….. 9  
Cowan Insurance Group Ltd. … 31  
Delta Elevator Co Ltd …………. 39  
Gosse Masonry Inc. …………. 23  
Grand River Contracting Inc. … 12  
Haney Trading ………………….. 12  
Heavy Equipment Show ………. 24  
Infrastructure Health and Safety Association … 40  
JDI Cleaning Systems Inc. …… 15  
Knell’s Door & Hardware …….. 33  
K-W Cornerstone Paving Ltd. ….. 9  
MCA-KW” (Mechanical Contractors Association) … 35  
Miller Thompson LLP …………. 26  
Mister Transmission (International) … 41  
MTE Consultants Inc. …………. 17  
RBC Dominion Securities ……… 25  
RHC Design-Build ……………. 13  
Szaeble Insurance …………… 27  
Strassburger Windows and Doors … 39  
Tvan Excavating Ltd. …………. 37  
Victoria Star Motors …………. 44
The traditional benefits management model leaves you up in the air.

We realize that businesses lose productivity, time and money if they are making decisions based on limited information and budget pressures. We call it the Reactive Decision Trap™. At AQ Group Solutions, we provide critical insights and advanced data extraction tools that save time and money. Your business decisions all require precision alignment. Why should your benefits be any different? Call us to construct a powerful plan that aligns with your corporate and financial objectives.

The AQuity 360° Program™

Helping you mind your business. benefits@aqgroupsolutions.com 888-989-2006
Introducing the Sprinter 4x4.

We’re breaking new ground.

Sometimes getting to the job site is work itself. That’s why we’re introducing Canada’s only 4-wheel drive commercial van – the Sprinter 4x4. Activated at the push of a button, the Sprinter 4x4 uses the 4ETS traction system to electronically control individual wheels, giving these cargo vans some serious ground-gripping power when you need it. See what it’s made of at Sprinter4x4.ca.

©2014 Mercedes-Benz Canada Inc.