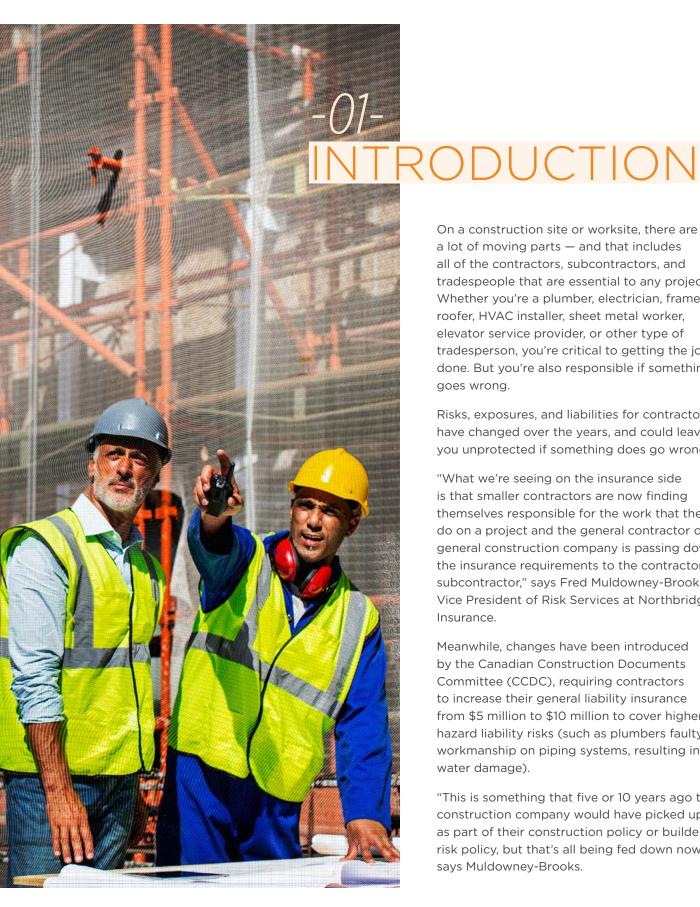




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On a construction site or worksite, there are a lot of moving parts — and that includes all of the contractors, subcontractors, and tradespeople that are essential to any project. Whether you're a plumber, electrician, framer, roofer, HVAC installer, sheet metal worker, elevator service provider, or other type of tradesperson, you're critical to getting the job done. But you're also responsible if something goes wrong.

Risks, exposures, and liabilities for contractors have changed over the years, and could leave you unprotected if something does go wrong.

"What we're seeing on the insurance side is that smaller contractors are now finding themselves responsible for the work that they do on a project and the general contractor or general construction company is passing down the insurance requirements to the contractor or subcontractor," says Fred Muldowney-Brooks, Vice President of Risk Services at Northbridge Insurance.

Meanwhile, changes have been introduced by the Canadian Construction Documents Committee (CCDC), requiring contractors to increase their general liability insurance from \$5 million to \$10 million to cover higher hazard liability risks (such as plumbers faulty workmanship on piping systems, resulting in water damage).

"This is something that five or 10 years ago the construction company would have picked up as part of their construction policy or builder's risk policy, but that's all being fed down now," says Muldowney-Brooks.



While a general construction company or larger contracting company might store its fleet of vehicles and equipment in a central yard, a smaller contractor is more likely to be using vehicles that are taken home at the end of the day. That means a contractor or subcontractor has risks and exposures that are different from a general construction company.

Some contractors might have a fleet of heavy-duty vehicles and would be required to follow the guidelines of the National Safety Code. But smaller contractors might be using pickup trucks or cube vans, which are not commercially rated vehicles. However, they should still have their own controls in place, such as checking that drivers have proper licensing and ensuring they do pre-trip inspections.

"In both situations the company should have a safety officer in place to oversee that aspect of driver control and maintenance of equipment," says John Cameron, Risk Services Specialist with Northbridge.

Contractors and subcontractors should ensure their vehicles are parked in a safe location — particularly if there are thousands of dollars of tools or materials inside. They're responsible for those tools or materials, as well as any equipment on the back of a vehicle. For example, if a truck has pumping equipment in the back, they may need to store the vehicle inside during the winter months to ensure the water doesn't freeze and damage the pumping equipment.

It's not uncommon for a contractor to have several thousand dollars' worth of tools in their pickup truck, for example. "We always advocate that they consider a vehicle that doesn't have windows in the back or sides of the van, especially if they're carrying tools or equipment because if you can see inside the van, you can likely see what's there to be stolen," says Muldowney-Brooks.

If the van does have windows in the back, they can be covered, removed, or blacked out, or a security cage can be used inside the vehicle to help prevent crimes of opportunity, especially if the vehicle is parked outside a contractor's home for the evening.

If a vehicle has been assigned to a tradesperson for the duration of a job, how is that tradesperson protecting any tools, materials, or equipment stored in the vehicle? Contractors should have procedures in place — and ensure tradespeople are providing documentation of compliance. Smaller contractors with a fleet of vehicles should also make sure those vehicles are being serviced on a regular basis, in accordance with the manufacturer's specs, and properly documented.

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We always advocate that [contractors] consider a vehicle that doesn't have windows in the back or sides of the van, especially if they're carrying tools or equipment because if you can see inside the van, you can likely see what's there to be stolen.

Fred Muldowney-Brooks,
Vice President Risk Services



Hiring Drivers vs Hiring for the Trade

There are professional drivers, hired specifically for their driving skills, who are provincially regulated. Then there are subcontractors or tradespeople who are hired for their skills, but may be required to drive as part of their job, such as driving materials to and from a jobsite.

Contractors don't hire people for their driving skills; they're hiring for their trade. This is an issue for a lot of contractors, says Muldowney-Brooks, because a tradesperson might be excellent at their job but have a terrible driving record. Regardless, from an insurance perspective, the contractor will end up paying for any losses, so they do need to take the person's driving history into account.

"They should get the driver's abstract, they should review it and make sure there's nothing major that could be a concern to the insurance company before they hand over the keys to one of their vehicles," says Muldowney-Brooks.

A tradesperson's driving record should be as important a consideration as their skills to do the work. If, however, their driving skills are lacking, there are a few ways to accommodate that, such as assigning the tradesperson to a two-person team or crew so they don't do any driving. Contractors should also consider regularly updating their list of drivers, and tradespeople who are no longer employed should be removed from the schedule to limit extension of coverage.

Subcontracting Risks

Apart from projects covered under a wrap-up liability policy, subcontracting can affect the liability exposure of a general construction company. Subcontractors should be able to provide a Certificate of Insurance to confirm coverage (either prior to a project or annually for ongoing work), which details their liability insurance coverage. They should also check that the Certificate of Insurance has a current term and hasn't expired.

If the subcontractor doesn't have insurance — or doesn't have sufficient insurance — the general construction company may be required to cover the loss. Their premiums may increase, their deductibles may increase, and their ability to get insurance may be affected.

This also applies to contractors who hire subcontractors or tradespeople to work on a larger job for a general construction company. If you're a small contractor, make sure you get details on the subcontractor's work history. Find out if they've done jobs similar in size and complexity in the past. Talk to general contractors they've worked with and get feedback on the subcontractor's timeliness and quality of work. Do a credit check. While you might have to do a bit of legwork upfront when you're dealing with a new subcontractor, it could help save a lot of money and hassle in the long run.



If the subcontractor doesn't have insurance — or doesn't have sufficient insurance — the general construction company may be required to cover the loss.

Falls

Jobs on towers, bridges, and other elevated structures come with risks. Orientation sessions and training should be provided for all contractors on site. If you're a smaller contractor or subcontractor hired to do a job on an elevated structure, make sure that certain protections are in place to help prevent falls. Guardrails are the most common protection, but if guardrails aren't practical or possible, ensure you have access to either of these pieces of equipment:

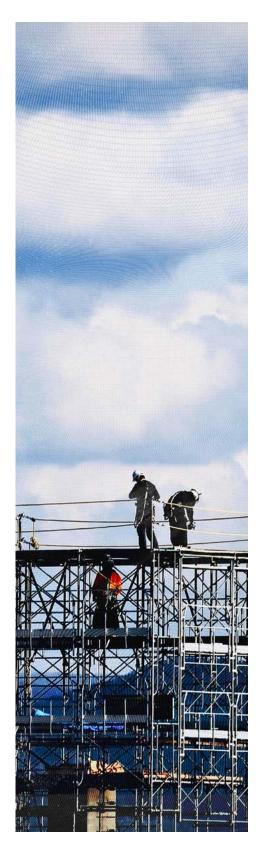
- Fall restraint, sometimes called work positioning, consists of a body harness or belt worn by the worker and a tether attached to a secure anchor point.
 Tradespeople working on a roof, for example, might use fall restraint.
- Fall arrest is designed to bring a worker to a safe stop
 after falling. It consists of a body harness (belts are not
 recommended) and a shock-absorbing lanyard that must
 be tied off to a safe anchor point. If the worker should
 fall, the lanyard will absorb some of the shock, and the
 worker will be left hanging to climb back or wait for
 rescue. People working high above the ground on a steel
 tower, for example, would use fall arrest.

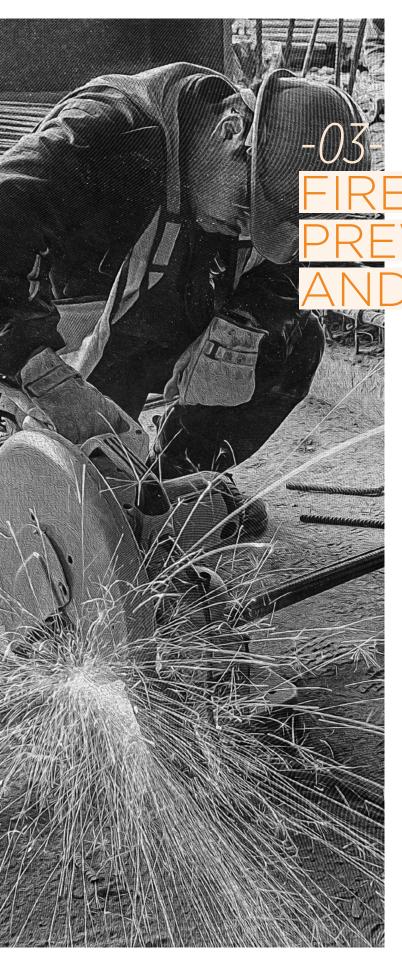
Confined Spaces

Another safety concern for contractors or subcontractors is working in a confined space — basically any space where a dangerous atmosphere may develop, such as a storage tank, sewer tunnel, or underground vault. Too much oxygen in a confined space will increase the risk of fire, yet too little oxygen will cause suffocation. There might be toxic gas that could overcome a worker or flammable gas or vapour that could be ignited into a fireball by a single spark.

If you're working in a confined space, ensure that the atmosphere is tested and monitored as part of an overall safety plan. Assessing the air in a confined space can be done via oxygen meters, flammable gas or vapour detectors, meters for specific toxic gases such as hydrogen sulphide or carbon monoxide, as well as multi-meters with modules for more than one toxic gas.

A self-contained breathing apparatus (or SCBA respirator) provides breathable air when there isn't enough oxygen in the atmosphere, when there's more than one toxic gas, or when it's not known what hazards might exist. SCBA systems are often used together with chemical protective suits.





If you're a small contractor with a shop or yard, ensure you have smoke and fire detection devices and portable fire extinguishers on site. The yard should be illuminated with floodlights at night and enclosed with fencing. If you have thousands of dollars' worth of tools, materials, equipment, or products on site, consider installing a security surveillance system or hiring a watchman service for nights and weekends.

OT WORK

'ENTION

Material and equipment stored in sheds or in the open air should be subdivided into fire sections with a maximum value of \$750,000. Depending on the storage method, sufficient free space must be provided between sections to allow access. Combustible material should be marked clearly and stored separately. Packing materials, combustibles, and explosives should be stored at a safe distance from buildings and stores.

Guidelines for Temporary Heating: If you require the use of temporary heating, ensure that only units "listed" or "approved" by a recognized testing organization such as UL/ULC or CSA are used. Each heater has a data plate indicating the necessary clearances to combustibles, ventilation requirements, and fuel type, and you must adhere to these specifications. Multi-purpose fire extinguishers with a minimum of a 3A 10BC rating should be provided where temporary heaters are used.

Hot Work

Hot work — any process that uses or generates open flames, sparks, or heat, such as welding, cutting, or brazing — poses a very high fire risk and has the potential to cause major losses on jobsites, as well as on the sites where hot work is carried out by contractors. In fact, hot work is one of the three most common causes of fires and material losses on insured properties.

Potential fire scenarios include welding and cutting of metal performed in open areas or near pits, in proximity to combustible parts, materials, or construction elements. Sparks and hot slag generated by hot work processes can fly, roll, bounce, and shower onto floors, ceilings, walls, and other elevated surfaces or get lodged into cracks and crevices. They can travel great distances, with the potential to ignite any combustible material in their radius — horizontally and vertically. The minimum radius distance to be cautious within is 15 metres (50 feet). Operations such as grinding, thermal spraying, roofing membrane application (hot process), and even frozen pipe thawing are examples of risks associated with hot work.

Hot work losses often occur because of negligence, lack of or improper training, and absence or non-adherence of strict hot work safety guidelines and protocols, such as CSA W117.2-12. All of these are linked to human error and are therefore preventable. If you're a contractor who engages in hot work, on the jobsite or at your shop, it's important to put the necessary controls, protocols, and practices in place to minimize the risk of loss. Proper preparation, employee training, adequate controls, and safety equipment will all contribute to managing the risk of hot work. Northbridge has hot works 'permits' for any contractor wanting them.

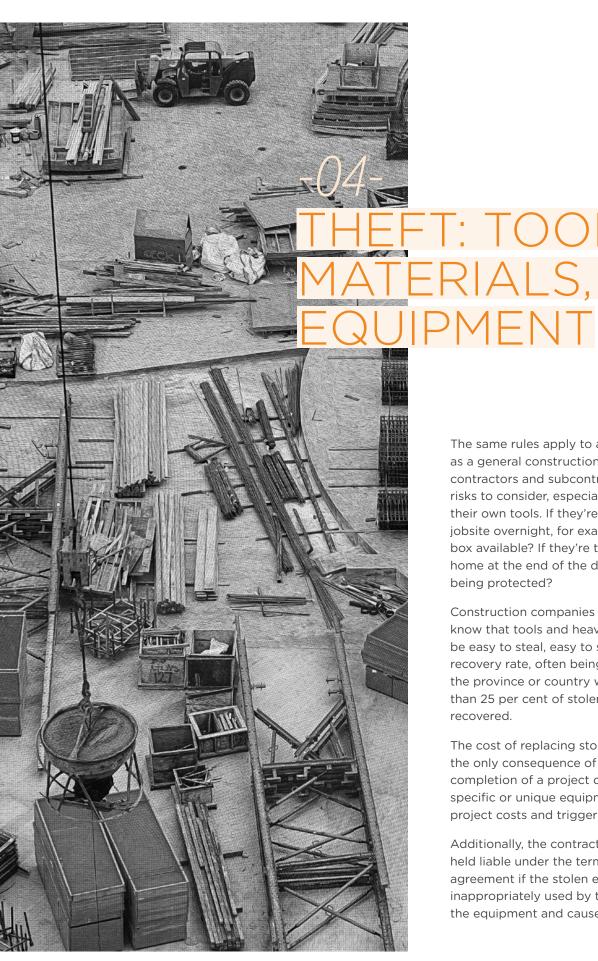
Many general construction companies have a hot work management program, which establishes safety protocols aimed at identifying hot work hazards and controlling their associated risks. It typically includes policies, procedures, and the assignment of responsibilities and accountabilities for all aspects of hot work.

If you're a subcontractor performing hot work at a client's site, always check if they have their own hot work management program and adhere to it strictly, including any permit system in place. Obtain your client's approval and sign-off, and then document all your procedures and actions. Survey the hot work area and, if possible, remove combustible material. If the combustible material cannot be removed, use thermal barriers to protect it. Conduct a fire watch for at least 60 minutes after finishing hot work. Check with your insurance broker for any limitations in your liability coverage pertaining to hot work.





Conduct a fire watch for at least 60 minutes after finishing hot work.



The same rules apply to a small contractor as a general construction company, but contractors and subcontractors have other risks to consider, especially if they're using their own tools. If they're leaving tools on a jobsite overnight, for example, is there a lock box available? If they're taking those tools home at the end of the day, how are they being protected?

: TOOLS,

RIALS, AND

Construction companies and contractors know that tools and heavy equipment can be easy to steal, easy to sell, and have a low recovery rate, often being shipped out of the province or country within hours. Less than 25 per cent of stolen equipment is ever recovered.

The cost of replacing stolen equipment isn't the only consequence of theft. Delays in completion of a project due to the loss of specific or unique equipment can increase project costs and trigger late penalties.

Additionally, the contractor may be held liable under the terms of the rental agreement if the stolen equipment is inappropriately used by the person who stole the equipment and causes damage or injury.

Unfortunately, not all thefts are preventable, but contractors can make it more difficult for thieves to steal their tools and equipment by doing things like using identifying marks on tools (numbers or a company logo) and tracking vehicles or equipment with a GPS device, transponder, or RFID (radio frequency identification technology).

Contractors should ensure their yard is well lit and that tools, materials, and equipment are locked up. If leaving tools on a jobsite, use lock boxes with harden locks (hidden shackles) or secure tools in an enclosed building with alarms. At the end of a workday, disconnect batteries and ignition fuses and keep them in a secured location.

"General contractors may need to make provisions for where to leave tools for subcontractors," says Cameron. "If I'm a carpenter working on an apartment building and the cabinets are ready to be installed, then I'm going to bring as many cabinets to the site as I possibly can. But where am I going to put them? They have to be protected from theft, but also from being an additional fire load on the area."

10'S OF MILLIONS

of dollars' worth of tools and equipment are stolen each year in Canada — and this statistic continues to soar.

<25%

of stolen equipment is ever recovered.





The Layered Approach to Theft Prevention

To help prevent theft, an effective equipment theft prevention plan includes multi-layered measures, which vary based on the theft level of the equipment. Contractors with low-hazard equipment can incorporate multiple measures from Layer One, which are effective and low-cost. On the other hand, a contractor with high-hazard equipment may require multiple measures from all four layers. These layers include:



Layer One:

Removing keys, locking doors, parking in well-lit visible areas, storing in controlled site access, corralling and securing equipment together;



Layer Two:

Visible or audible warning devices that provide theft deterrent such as alarms, steering column collars, steering wheel and brake pedal locks, locks (Track, cylinder, fuel caps, wheel, hitch, pin), wheel boots, hydraulic lock-out systems, cab shields, and tire deflators, etching VIN or ID numbers onto windows/parts (which imposes re-sale issues);



Layer Three:

Immobilizer devices, smart keys or key transponder systems (for example, Caterpillar MSS), cab control access code systems, fuse cut-offs and kill switches, starter and fuel disabler switches that prevent hot-wiring and bypassing the ignition systems;



Layer Four:

Tracking systems, geo-fencing systems, motion-sensing security lights, surveillance cameras covering the storage yard.

Record-Keeping

Record-keeping for a contractor means having a current inventory and detailed record of all tools and equipment used on project sites. It's a way to manage and track inventory, which is particularly helpful when working on multiple job sites using shared resources (and helps determine if you need to purchase or replace anything). If any tools or equipment are stolen, you can refer to your records to help assist in their recovery.

There are third-party services that can make this process easier, such as the Tool Inventory and Appraisal System (TIAS), which provides an upto-date inventory of all the tools in your shop, estimates the value and condition of the tools, and helps determine whether you're over- or under-insured.

Whether you keep a binder or use software to do your record-keeping, having a current inventory and detailed records of all tools and equipment used on project sites is an instrumental element to management and recovery. Here's a list of what you may want to include in your records:

- Serial numbers and product identification
- Make and model
- Description
- Year built
- Invoice details, such as date purchased and value/cost
- Markings, logos, and location of any details that help with identification
- · Service dates
- Photos

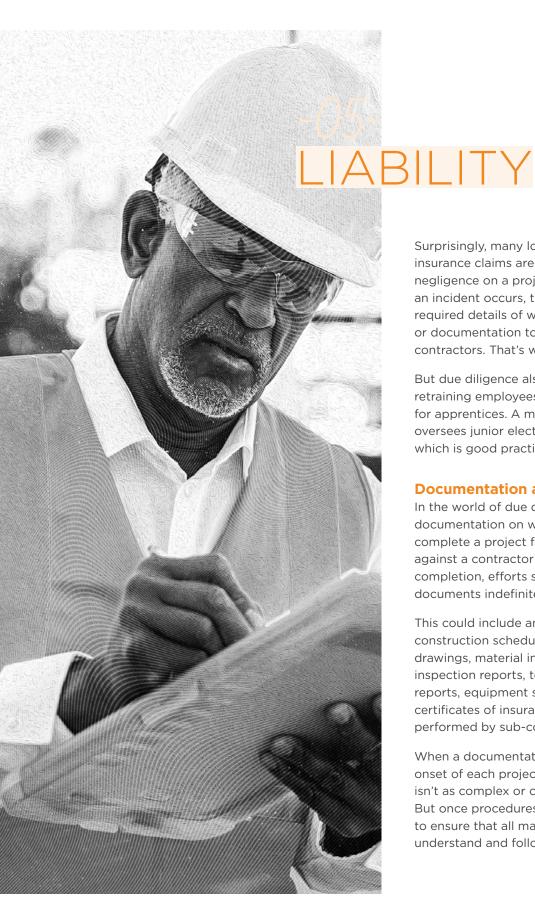
Record-keeping does more than help contractors manage inventory — it can help to avoid the cost of replacement and costly project delays. While it won't stop equipment theft, it will help keep track of your inventory and make reporting thefts easier.

Recovering Stolen Equipment

Property marking systems, such as MicroDOT, allow you to mark your tools and equipment for identification and authentication. MicroDOT, for example, chemically etches a tiny serial number the size of a pinhead, invisible to the naked eye, on a tool or piece of equipment. While it doesn't prevent these items from being stolen, you can prove that they're yours if recovered.

Contractors may want to consider registering their equipment and reporting any theft to Crime Stoppers, the manufacturer of the equipment, as well as the police. When you report equipment theft to the police, they keep a record of it in their system. If another contractor decides to purchase your equipment and does a background check, they'll see that it's been reported stolen. If stolen equipment is brought into a dealer for repairs or parts, and the manufacturer has your equipment in their stolen equipment database, your equipment may be recovered.





Surprisingly, many losses, liabilities, and subsequent insurance claims are often not the result of a contractor's negligence on a project, but simply because, when an incident occurs, the contractor cannot provide the required details of work performed, materials purchased, or documentation to verify work performed by subcontractors. That's why due diligence is so important.

But due diligence also involves training employees, retraining employees, and providing proper supervision for apprentices. A master electrician, for example, typically oversees junior electricians or apprentices on the jobsite, which is good practice for multiple trades.

Documentation and Procedures

In the world of due diligence, the responsibility to obtain documentation on work performed and materials used to complete a project falls on the contractor. Since actions against a contractor can occur many years after project completion, efforts should be made to retain these documents indefinitely.

This could include anything from contracts, tenders, and construction schedules to technical specifications, shop drawings, material invoices, progress reports, daily logs, inspection reports, testing reports, survey and audit reports, equipment service and maintenance records, certificates of insurance, and documentation of work performed by sub-contractors and consulting engineers.

When a documentation system is put into place at the onset of each project, maintaining proper documentation isn't as complex or cumbersome as it may initially seem. But once procedures are in place, it's equally important to ensure that all managers, supervisors, and workers understand and follow those procedures.

Pre-Site Inspections

As part of your documentation system, workers should be required to do a pre-site inspection before going ahead with any work.

"I can appreciate that it may become a bit mundane, because let's say in a week you're visiting 50 places, so you have to do 50 checklists," says Muldowney-Brooks. "But from a claims perspective, if you have a checklist that's dated and signed, that goes a long way if a loss occurs. Documentation is critical."

Mobile apps can make this process easier, such as the one from <u>Real Time Risk Solutions</u> that captures documentation online and uploads it to a central repository.

Faulty Workmanship Loss Prevention

Under certain circumstances, damages or injuries resulting from faulty products or faulty workmanship can be covered under a contractor's General Liability policy. These types of losses are preventable with the proper policies and procedures in place (see Appendix A).



Safety program

A safety program is the best way to provide awareness of how injuries and damage can occur. Your safety program should include safety policies and a system to identify, communicate, and control hazards. It's recommended that each day start with a site meeting, so each worker is clear on the scope and hazards of the job. Although safety and work quality is in everyone's best interest, it's primarily the responsibility of the management team to implement and enforce.



Quality control

Quality control procedures are necessary to help ensure consistency and limit errors. Testing and inspection procedures must be adequate to assure compliance with specifications, codes, and standards. In some cases, building codes, or even the terms of your contract, may call for independent inspection and testing by outside firms, by municipal inspectors, or by other government authorities.



Record-keeping

It's important to keep records of the quality control measures in place and how they were applied to each project. Completed operations claims arise long after the job is finished and your best defence is clear and well-maintained records that document the preventative steps that were taken to ensure quality work. These records may well be the foundation of a legal defence, months or even years down the road.

Infection Control

As we've learned from COVID-19, any business — including a contractor — needs a plan for infection control. This requires a multi-faceted approach, including updated hygiene and cleaning practices, changes to the physical environment, and new behaviours by employees. It also requires developing a response plan based on government and industry best practices, which is then communicated to all employees, including subcontractors and tradespeople.

In April 2020, the Canadian Construction Association developed COVID-19 - Standardized Protocols for All Canadian Construction Sites for all construction sites across the country, and which is updated as new best practices emerge. Among its recommendations, the CCA recommends the jobsite "be segregated to the extent possible in zones or other methods to keep different crews/trades physically separated at all times." The CCA also encourages voluntary shift offsets and time gaps between shifts, which could mean fewer workers are allowed on a jobsite at any one time, so project timelines may need to be adjusted.

Contractors coming onto a jobsite should be aware of these protocols. Contractors should complete a health assessment prior to or when arriving onsite, which can be captured using the Real Time Risk Solutions application (which includes a COVID checklist). For work that has to be done in close proximity, the CCA recommends formalizing procedures and requiring personal protective equipment (PPE) to minimize risk. Where work is done in crews, come up with a plan to minimize or eliminate the crossover of workers between crews, with staggered breaks and lunch schedules.

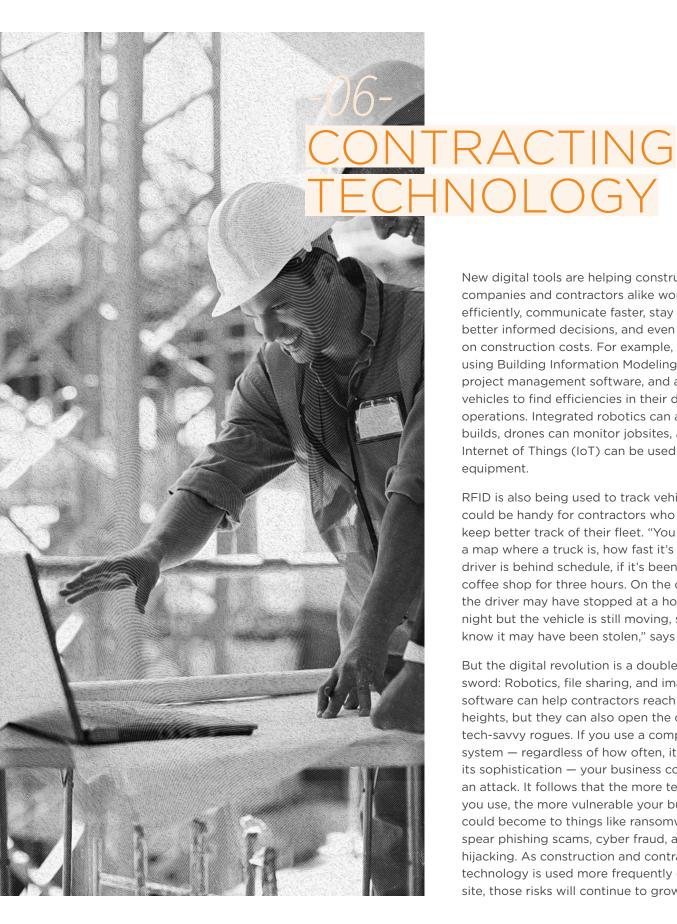
Infection control ties into a larger business continuity plan for disruptive events, such as a natural disaster, cyberattack, or pandemic. Even small contractors should be thinking about this, since one in four businesses don't reopen after a disruptive event.

It's about thinking ahead so you have alternatives in the event something happens," says Muldowney-Brooks. "If you can't get what you need from your normal supplier, where do you get it from? If your tradespeople are unavailable, how will you supplement your workforce? So, it's thinking about all aspects of your business: your key workers, your key suppliers, and your key vendors. A little bit of preparation can go a long way."

It's about thinking ahead so you have alternatives in the event something happens... A little bit of preparation can go a long way.

Fred Muldowney-Brooks, Vice President. Risk Services





New digital tools are helping construction companies and contractors alike work more efficiently, communicate faster, stay safer, make better informed decisions, and even cut down on construction costs. For example, they're using Building Information Modeling (BIM), project management software, and autonomous vehicles to find efficiencies in their day-to-day operations. Integrated robotics can assist in builds, drones can monitor jobsites, and the Internet of Things (IoT) can be used to track equipment.

RFID is also being used to track vehicles, which could be handy for contractors who want to keep better track of their fleet. "You can see on a map where a truck is, how fast it's going, if the driver is behind schedule, if it's been parked at a coffee shop for three hours. On the other hand. the driver may have stopped at a hotel for the night but the vehicle is still moving, so then you know it may have been stolen," says Cameron.

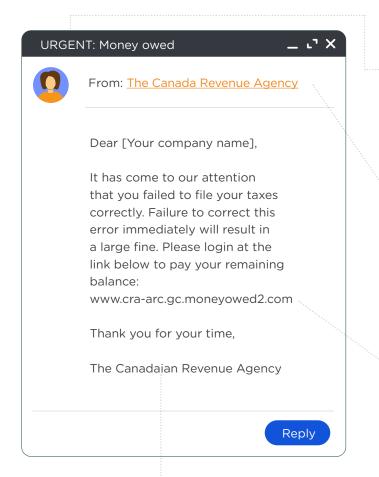
But the digital revolution is a double-edged sword: Robotics, file sharing, and imaging software can help contractors reach new heights, but they can also open the door to tech-savvy rogues. If you use a computer system — regardless of how often, its size, or its sophistication — your business could suffer an attack. It follows that the more technology you use, the more vulnerable your business could become to things like ransomware, spear phishing scams, cyber fraud, and digital hijacking. As construction and contracting technology is used more frequently on and off site, those risks will continue to grow.

Cyber Risks

At the start of the pandemic, many businesses were forced to rapidly move their operations online, often without any preparation — opening them up to even further risk. If you haven't yet taken stock of your new digital processes to see if there are any vulnerabilities or security gaps, you should do so as soon as possible.

"If you're a general contractor, you're probably dealing with dozens of subcontractors and you may not know them all by name. And you're going to open and sign a lot of digital documents, especially during the pandemic," says Derek Browne, Chief Information Security Officer at Northbridge. "You're going to be doing things digitally rather than with pen and paper, and it may be easy to mistake a phishing email for a legitimate digital signing request."

An example of a fake phishing email:



About 90% of ransomware attacks start with a phishing email

Derek Browne, Chief Information Officer at Northbridge

Many phishing e-mails will employ a sense of urgency and scare tactics to get the recipient to act quickly without thinking.

Check who the e-mail has been sent by to ensure it's from a trustworthy source. Even if the name is trustworthy, check that their e-mail lines up with who they say they are. For example, the CRA would not be e-mailing from a gmail account.

Ensure that any links in the e-mail lead to trustworthy URLs. Even if the link says one thing, hover over it to see the true URL because it may not lead to the page you think it will.

Some phishing e-mails will have spelling errors in them. Be on the lookout for spelling or grammatical errors.

Cyber criminals try to trick employees into giving away sensitive or financial information or getting them to click on a malicious link through a phishing email or phone call, using social engineering techniques. Once they gain access to a corporate network, they can steal data, upload malicious programs, or initiate a ransomware attack. They might even create fake accounts on the server with administrative access.

"From a phishing point of view, a very common next step is a ransomware attack — about 90 per cent of ransomware attacks start with a phishing email," says Browne. Ideally, you don't want it to escalate to that point, so it's important to educate employees about phishing, protect sensitive data, have offsite backups, and ensure policies and procedures are in place so you know what to do if you do become the victim of an attack.

Whether you're a small contractor or a nationwide construction corporation, a data leak could mean the end of the road for your operations. In some cases, a hacker will target the account of a contractor or subcontractor in order to gain access to their clients.

Even a small contractor will have a significant amount of sensitive information on jobs, clients, employees, and partners that will accumulate over the years. Much of this information will become stale over time but can still be used for identity theft and other malicious activities. If your database is hacked and information is stolen, the damage to your reputation could be great and you could be held liable for weak security controls.

That's why it's essential that contractors who collect and store information on who they do business with protect that data appropriately. For instance, if you're holding employee banking information, they are trusting that you will protect it from unauthorized access and

tampering. Firewalls, intrusion detection systems, and endpoint protection such as anti-virus and malware solutions are required on all computers that connect to the network where that data is stored. More critical is multi-factor authentication, backups, and most importantly, employee training on how to detect and prevent the attack.

Given the boost in safety and efficiency that technology can bring to a construction project, it makes more sense to get familiar with the risks and consider how to manage them, rather than ditching your digital tools. You'll want to put some thought into which aspects of your operations may seem most attractive to a cybercriminal. This is no small feat; any business will need to put in time and research to come up with a good understanding of their vulnerabilities in order to build up a strong defence.



Here are some other common examples of messaging phishing e-mails can utilize:



There is a file waiting for you.



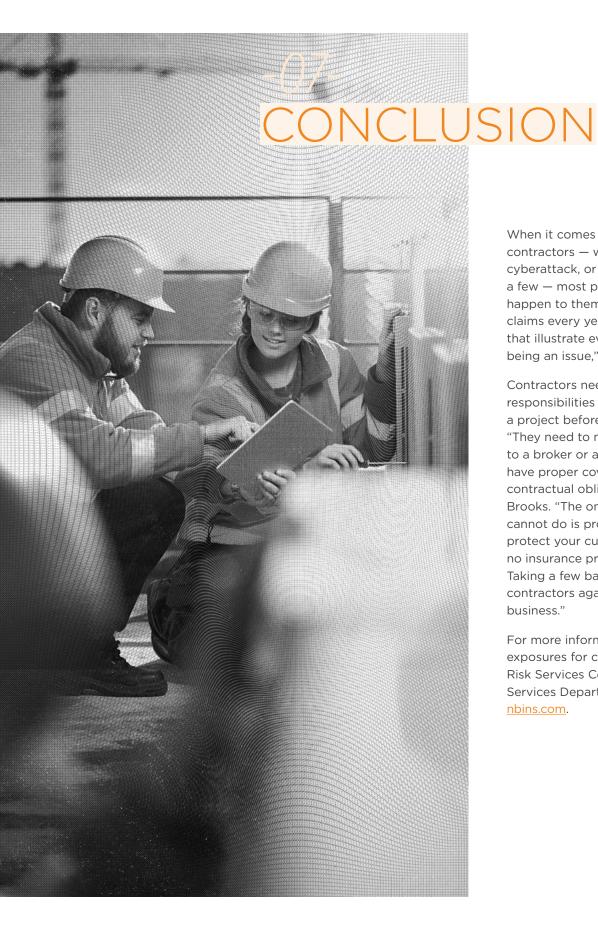
This voice mail came in for you – play the attachment.



There is money pending your acceptance.



I have money that I need to transfer and will pay for your assistance



When it comes to risks and exposures for contractors — whether theft, fire, injury, cyberattack, or natural disaster, to name a few — most people think it will never happen to them. "We see thousands of claims every year in the contractor business that illustrate every single one of these as being an issue," says Muldowney-Brooks.

Contractors need to be aware of their responsibilities and accountabilities on a project before signing the dotted line. "They need to make sure they're talking to a broker or an agent and ensuring they have proper coverage based on their contractual obligations," says Muldowney-Brooks. "The one thing that insurance cannot do is protect your reputation and protect your customer base. There is no insurance product available for that. Taking a few basic steps will help protect contractors against being put out of business."

For more information on risks and exposures for contractors, contact your Risk Services Consultant or our Risk Services Department at **1-833-692-4111** or nbins.com.





Appendix A: Contractors Quality Control Checklist

A. General Information			
Employee Name:	Date:		
Project Name/Address:			
Description of work to be completed:			
B. Scope of Work			
Were job specifications or engineered drawings reviewed prior to commencement of work?	Yes	No	
Was the job discussed with the customer prior to commencing work?	Yes	No	N/A
Was a pre-inspection of existing systems completed prior to commencement of work?	Yes	No	N/A
Were any issues identified as part of the pre-inspection? If yes, explain.	Yes	No	N/A
C. Materials			
Are new materials to be used for this job?	Yes	No	N/A
Were materials inspected to ensure they meet all code compliance?	Yes	No	N/A
Were corrective actions taken for defective material? If yes, explain.	Yes	No	N/A
D. Installation			
Was work completed in accordance with specifications (manufacturers specification, engineers drawings, appropriate codes)?	Yes	No	N/A
Were "Red Tags," "Out of Service," or indicating devices used during the scope of work?	Yes	No	N/A
Were any deviations to the specifications completed? If yes, explain.	Yes	No	N/A

Appendix A: Contractors Quality Control Checklist Continued

Was any functional or visual testing performed? If yes, explain. Testing frequency? Daily Weekly Bimonthly Monthly Test results: Pass Fail Were corrective measures required? Yes No N/A Was additional testing required? Yes No N/A Were tests documented and signed off on by an employee or appropriate person? Yes No N/A F. Inspection Name of person completing inspection of work: Were deficiencies noted? If yes, were corrective actions taken and re-inspection Was a final inspection performed? Yes No N/A Were sign-offs performed? If yes, by who? If no, explain. Yes No N/A Were photos of the completed work taken to be kept on file? Yes No N/A G. Sign-off Please print name:	E. Testing							
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