

Spring Construction Hazards



Winter is finally coming to a close, which means construction activity is ramping up across Canada, creating a unique set of occupational health and safety (OHS) challenges. Melting snow, fluctuating temperatures, saturated ground, and the restart of seasonal projects all create conditions that can increase the risk of incidents. For OHS managers, proactive planning and hazard identification are essential to ensure a safe and productive construction season.

The Changing Risk Landscape in Spring

Spring in Canada is rarely predictable. One day may bring warm sunshine, while the next delivers freezing rain or sub-zero overnight temperatures. These fluctuations create dynamic job site hazards that differ from both winter and summer risks.

Many projects that were paused over the winter resume in early spring. Others begin fresh as tendered contracts are awarded. This transition period (when sites are being reactivated, equipment is recommissioned, and new workers are onboarded) can significantly increase the likelihood of injuries if hazards are not carefully managed.

Common Spring Construction Hazards

1. Slips, Trips, and Falls

As snow and ice melt, job sites often become muddy, uneven, and unstable. Refreezing overnight can create black ice in the morning. Water accumulation can obscure holes, trenches, or debris.

Where and when: Access routes, scaffolding platforms, roof surfaces, ladders, and excavated areas, particularly during early mornings or after freeze-thaw cycles.

How to spot them: Look for pooling water, saturated ground, slippery walkways, and damaged temporary surfaces.

How to address them:

- Implement daily site inspections focused on walking/working surfaces.
- Improve drainage and pump out standing water.
- Use gravel or temporary matting to stabilize muddy areas.
- Reinforce housekeeping protocols.
- Require appropriate slip-resistant footwear.

2. Excavation and Trench Hazards

Spring thaw can destabilize previously frozen soil. What was solid ground in February may become loose and prone to collapse in April.

Where and when: Excavation sites, utility installations, foundation work, especially during heavy rainfall or rapid thaw.

How to spot them: Signs include cracking soil near trench edges, sloughing, water seepage, and shifting trench walls.

How to address them:

- Reassess soil classification as conditions change.
- Install proper shoring, shielding, or sloping in accordance with provincial regulations.
- Conduct daily inspections by a competent person, particularly after weather events.
- Ensure safe access and egress from trenches.

3. **Flooding and Water Hazards**

Heavy rainfall combined with melting snow can overwhelm site drainage systems. Flooded excavations pose drowning risks and may undermine structural integrity.

Where and when: Low-lying sites, underground work areas, elevator shafts, and foundation excavations.

How to spot them: Weather forecasts predicting heavy rainfall, rising groundwater levels, and overwhelmed sump systems.

How to address them:

- Develop a site-specific water control plan.
- Maintain pumps and backup power sources.
- Monitor weather alerts from Environment and Climate Change Canada.
- Restrict access to flooded areas until hazards are mitigated.

4. **Electrical Hazards**

Water and electricity are a dangerous combination. Spring moisture increases the risk of electric shock, especially with temporary power systems.

Where and when: Outdoor outlets, extension cords in wet conditions, temporary lighting, and power tools.

How to spot them: Damaged cords, unprotected connections, or equipment sitting in water.

How to address them:

- Use ground fault circuit interrupters (GFCIs).
- Elevate electrical connections off the ground.
- Inspect all temporary electrical systems before project restart.
- Remove damaged equipment from service immediately.

5. Heavy Equipment and Traffic Risks

As projects restart, equipment returns to site, sometimes after months in storage. Operators may be new or unfamiliar with the specific project.

Where and when: Active roadwork, earthmoving operations, and multi-employer worksites.

How to spot them: Congested traffic routes, unclear signage, blind spots, and inexperienced operators.

How to address them:

- Conduct refresher training for operators.
- Inspect and service equipment before use.
- Update traffic management plans.
- Use spotters and high-visibility PPE.

6. Structural Instability

Projects left partially completed over winter may have experienced weather-related damage. Snow loads, ice buildup, and freeze-thaw cycles can weaken materials.

Where and when: Framing, scaffolding, partially enclosed structures, and temporary supports.

How to spot them: Warped materials, loose fasteners, cracked concrete, or corrosion.

How to address them:

- Perform engineering assessments before resuming work.
- Reinspect scaffolds and temporary structures.

- Replace compromised materials.

7. Worker Fatigue and Heat Stress

While early spring is wet and cool, late spring can bring unexpectedly high temperatures. Workers accustomed to winter conditions may not be acclimatized.

Where and when: Roofing projects, road construction, and exposed outdoor sites.

How to spot them: Signs of heat exhaustion such as dizziness, fatigue, and excessive sweating.

How to address them:

- Implement gradual heat acclimatization plans.
- Provide hydration stations.
- Adjust work-rest schedules.

Proactive Planning for OHS Managers

Preparation begins before crews mobilize. OHS managers should review hazard assessments, update safe work procedures, and ensure compliance with provincial occupational health and safety legislation (e.g., WorkSafeBC, Ontario's Occupational Health and Safety Act, Alberta OHS Code).

Key actions include:

- Conducting seasonal hazard assessments tailored to spring conditions.
- Holding toolbox talks focused on spring-specific risks.
- Reviewing emergency response plans for flooding or severe weather.
- Ensuring supervisors understand their due diligence responsibilities.
- Coordinating with contractors to clarify roles and responsibilities in multi-employer worksites.

Spring construction hazards are dynamic and heavily influenced

by weather patterns unique to Canada's regions. By increasing inspections, reinforcing training, and anticipating how environmental conditions affect site stability, OHS managers can significantly reduce incident rates during this transitional season.

A proactive, prevention-focused approach ensures that as construction activity blooms in the spring, safety performance grows with it.