

## SECTION 9

# Excavation And Trenching

Be aware before you dig!

There are many things to be aware of when excavating such as worker safety, the requirement to contact utility companies and have the utilities marked before construction, and that digging too close to the property line may compromise your neighbours' fencing. As always, keep in mind City assets like sidewalks, boulevards and trees.

Prior to any excavation or digging, the excavator must contact Alberta One-Call online at **albertaonecall.com** and Shaw Cable at **digshaw.ca** to have the utilities marked.

### Hazards

- + Delivery, loading and unloading of heavy equipment
- + Improper storage of soil
- + Damaging an existing utility
- + Instability or collapse of trenches and excavations
- + Loss of supporting soil around neighbouring structures in and outside property lines
- + Excess water in excavated ground
- + Tracking mud onto sidewalk/roadway

### Best Practices

- + The spoil pile (the dirt that's been dug up) needs to stay on the site (not blocking sidewalks or roads) and should be kept away from the site perimeter.
- + Limit vehicle access to your site and stabilize these entrances. This will keep off-site mud tracking to a minimum (which should be cleaned up regularly, regardless).
- + Contractors should provide safe, alternate and unimpeded site access to service providers during utility and service installation.
- + While you have your trench open, we recommend you record the conditions, location and depth of the water and sewer service to avoid delays or additional costs (Call EPCOR).
- + Mind the hand exposing zone. The areas close to located utilities should be excavated with extreme care.

## Due Diligence

- + All required fencing and signage should be in place before excavation/trenching begins.
- + The location of all services (i.e. gas lines, water lines, etc.) must be current and complete before any demolition begins. All associated documentation should be on hand and immediately available for review.
- + When completing excavation of a site, contractors should ensure their activities comply with the following, but not limited to:
  - + the Alberta Building Code<sup>7</sup>
  - + the City's bylaws and regulations
  - + current Alberta Occupational Health and Safety Act, Regulations, and Code<sup>2,12,25</sup>
  - + ATCO Gas Safety Guide<sup>21</sup>
  - + CSA Standard Z247 Damage Prevention for the Protection of Underground Infrastructure<sup>30</sup>
  - + EPCOR Water Bylaw and Guidelines<sup>31</sup>
  - + EPCOR Drainage Services Bylaw and Guidelines<sup>32</sup>
- + Erosion and sedimentation should be prevented from entering the storm system by following the Control Guidelines & Field Manual.<sup>27</sup>
- + Shore all excavations to the standards of our legislated requirements. This may, at times, require engineering to ensure stability.
- + Seek professional involvement if shoring is required to ensure regulations are met and to keep the site safe for workers.
- + Make sure your site complies with the City's Drainage Bylaw 18093.<sup>16</sup>
- + When subcontractors create a temporary ramp, it should be removed at the end of the day to make sure the passage is safe for public and workers.
- + Make sure there are safe entry and exit points that comply with the Alberta Occupational Act, Regulations and Code.<sup>2,12,25</sup>



### Infill Tips

- ✦ When excavating or trenching, seek professional advice about following the limiting distances for shoring, soil stabilization, and protecting public infrastructure.
- ✦ Because of the small development area and how close you are working to the neighbours' homes, check with a professional to discuss mitigating any potential damage which may occur to neighbouring sites. Different sites may be at risk of different damage such as slumping, cave-ins, or vibration. You should try to ensure you avoid general damage to your neighbours' property!
- ✦ Have a plan and communicate with your neighbour about how you will address dangers if they occur.
- ✦ Do not move dirt and other excavation material to another residential site for storage.
- ✦ When excavating, leave enough room for a security fence on the construction site.
- ✦ Be aware of all property lines, and ensure when you are excavating that you still have room on your site to secure your construction fence!
- ✦ Ensure your excavation does not damage neighbouring property, including fences and foundations.