

<i>The Town of Fort Frances</i>	SECTION HEALTH AND SAFETY
<u>TRENCHING SAFETY</u> <u>POLICY</u>	NEW: November 2007 REVISED:
Resolution No. 406 (consent) 11/07	Supercedes Resolution No.
Policy Number 5.36	PAGE 1 of 4

PURPOSE

To ensure workers who may be required to work in a trench are appropriately protected by shoring, or an approved trench system, and to ensure compliance with applicable legislation.

RESPONSIBILITY

1. Supervisors are responsible for providing information, instruction, and assistance in safe operating procedures for entering and working in an excavation or trench.
2. Workers shall work in compliance with the safe operating procedures for entering and working in an excavation or trench.

DEFINITIONS:

Manufactured Support System: protective trench support appropriate for specified soil classifications and trench depth.

Shoring: braces one side of the trench against the other using timber or hydraulic braces.

Soil Type: determines the strength and stability of the trench walls

Trench: an excavation with a depth exceeding its width at the bottom; maximum bottom width is 3.7 metres (12 feet)

Trench Box: freestanding protected environment for trench workers in a trench that is moved via machine; not intended to shore up or support trench walls.

NOTE: Requirements of O. Reg. 145/00, s. 5.

If section 6 does not apply to a project but the project includes work on a trench more than 1.2 metres deep into which a worker may enter, the constructor shall, before any work at the project is begun, give notice in person, by telephone or by fax to the Ministry office located nearest to the project.

1. *Work shall not be performed in a trench unless another worker is working above ground in close proximity to the trench or to the means of access to it. O. Reg. 213/91, s. 225.*

SOIL TYPES

2. *For the purposes of this Part, soil shall be classified as Type 1, 2, 3 or 4 in accordance with the descriptions set out in this section.*

Type 1 soil,

- (a) Is hard, very dense and only able to be penetrated with difficulty by a small sharp object.*
- (b) has a low natural moisture content and a high degree of internal strength;*
- (c) has no signs of water seepage; and*
- (d) can be excavated only by mechanical equipment.*

Type 2 soil,

- (a) is very stiff, dense and can be penetrated with moderate difficulty by a small sharp object;*
- (b) has a low to medium natural moisture content and a medium degree of internal strength; and*
- (c) has a damp appearance after it is excavated.*

Type 3 soil,

- (a) is stiff to firm and compact to loose in consistency or is previously excavated soil;*
- (b) exhibits signs of surface cracking;*
- (c) exhibits signs of water seepage;*
- (d) if it is dry, may run easily into a well-defined conical pile; and*
- (e) has a low degree of internal strength.*

Type 4 soil,

- (a) is soft to very soft and very loose in consistency, very sensitive and upon disturbance is significantly reduced in natural strength;*
- (b) runs easily or flows, unless it is completely supported before excavating procedures;*
- (c) has almost no internal strength;*
- (d) is wet or muddy; and*
- (e) exerts substantial fluid pressure on its supporting system.*

(NOTE: Most municipal work will be Type 3 soil due to previous excavation.)

POLICY AND PROCEDURE

Trenching and excavations shall be undertaken in accordance with the OHSA and the Regulation for Construction Projects, in addition to the following:

General

1. A competent person must plan and evaluate all trenches prior to entry.
2. No worker shall enter a trench that is deeper than 1.2 metres (4 feet) unless the trench is properly sloped, shored, or protected by a trench box.
3. All workers involved in trenching operations shall wear the appropriate personal protective equipment.
4. Trenching operations shall be supervised by a competent person who is familiar with all the applicable legislation and company policies.
5. All planned trenching operations shall be reported to the applicable department head. The purpose, depth, and expected duration shall be included in the report
6. Considerations shall be given to the location, soil type, and available shoring systems, if necessary, to secure the excavation and for the protection of workers
7. Workers are not allowed into a trench that does not have a support system, shoring, or sloping, as is required.
8. Work shall not be performed in a trench unless another worker is stationed above ground in close proximity to the trench or to the means of access to the trench.
9. A competent person should classify trench conditions daily, or more often as the conditions could possibly change.
10. Workers shall be familiar with the applicable health and safety issues. This can be accomplished through training seminars (e.g. MHS A Trenching Safety), safety videos, safety meetings, and daily/weekly tailgate talks.
11. All equipment shall be kept clear of overhead utility plant in accordance with O. Reg 213/91, s. 186. Underground gas, electrical, and other services in or near the area to be excavated shall be accurately located and marked.
12. If the service may pose a hazard, the service shall be controlled, preferably by shutting off and/or disconnecting.
13. If the service poses a hazard and cannot be shut off or disconnected, the owner of the service shall be requested to supervise the uncovering of the service during the excavation.
14. All pipes, conduits, and cables for gas and other services in an excavation shall be supported to prevent their failure or breakage.
15. Trees, utility poles, sign poles, rocks and any other large debris shall be removed or secured prior to excavation.
16. Trenching operations shall be conspicuously identified and barricaded from pedestrian and vehicular traffic.
17. Work area protection shall be set out in accordance with an approved traffic protection plan, where applicable.
18. Sloping, shoring, and trench boxes shall be inspected by a competent worker daily for damage and defects.
19. Weather and soil conditions shall be monitored as work progresses.
20. Safe access and egress points shall be provided at all times when personnel are required to enter a trench.

21. A person competent in confined space entry shall determine whether trenching operations present any confined space hazards.

No worker shall be involved in trenching operations until approved training has been completed.