

# HELP WITH DECISIONS ROADS AND DEPENDENCIES



## Roads and travel lanes

It is important to clarify which professionals can prepare the documents necessary for the execution of construction and maintenance works on roads and highways and who can perform certain tasks and under what conditions. The purpose of this document is to summarize the relevant provisions of the *Engineers Act* in these respects. This tool applies to roads in a municipal environment or in a road or highway environment.

### Generale Rule

A road is a structure within the meaning of the *Engineers Act*. Indeed, whether temporary or permanent, a road work is a structure that requires studies on the properties of the materials composing or supporting it, and which is used for the transportation of persons or material. The plans and specifications necessary for carrying out work on road works must be signed and sealed by an engineer. The engineer must also be entrusted with the supervision and inspection of these works.

The design, alteration, or maintenance of this type of work must take into account the associated risks:

- Deficient drainage, pertaining of water, dangerous traffic for users;
- Inadequate dimensioning according to the usage, the type of vehicles, the traffic flow, the road geometry;
- Reduced service life, financial impacts for owners due to damage;
- Poor prioritization of interventions;
- Compromised user safety.

### Engineer's contribution according to the work carried out

From their design to their complete rehabilitation, road works undergo work of different magnitudes throughout their life cycle. To determine if an engineer's contribution is necessary, please refer to the table below. The list of examples provided is not exhaustive.

Type of work	Activities	Engineer's contribution necessary?
Design of a new road	Completion of preliminary studies (geotechnical, hydraulic (drainage), materials, compaction, etc.), preparation of plans and specifications, supervision of work, certifications of compliance, etc.	YES
Alteration or reconstruction of an existing road Objective: correct, rebuild, relocate or reconfigure the roadway	<b>Major work on an existing road work.</b> Examples: paving (covering an unpaved road with a layer of asphalt or other surface treatment), profile correction or adjustment, reconstruction of sidewalks and curbs, correction of an infrastructure problem, granular resurfacing with profile change or adjustment, change of materials.	YES
Rehabilitation work (major maintenance) of an existing road Objective: to rehabilitate the roadway	<b>Maintenance work carried out on the full width of the road or on a large proportion of the road surface, respecting the original plans and the existing profile.</b> Examples: addition of a wearing surface, paving, levelling, spraying, resurfacing, crack repair. NOTE: A municipality could ask an engineer to prepare procedures or methods of intervention to carry out certain maintenance work (e.g., filling/sealing cracks). Works could then be carried out by municipal resources following these procedures and methods, without additional engineering support.	YES
Minor maintenance work on an existing road Objective: to extend the service life	<b>Maintenance work carried out on a limited surface of the road or with little impact on bearing capacity or drainage. Existing profile maintained, local adjustments only.</b> Examples: application of a dust suppressant on a gravel road, pothole repair, patching, granular resurfacing (with no change/adjustment to longitudinal or cross-sectional profiles and no change of materials).	NO

Road work: all the constructions necessary for the establishment of a thoroughfare integrated into the whole of a road system.

We thank the following associations for participating in the preparation of this document:



# HELP WITH DECISIONS ROADS AND DEPENDENCIES



## Dependencies

The notion of dependencies of road works includes works located on the public road domain that are functionally dependent on the road or which are accessory to it. In other words, everything that contributes to the maintenance of the road work, to the protection of road users and, more generally, that allows the road to play its role is incorporated into the notion of dependencies of road works.

**EXAMPLES OF DEPENDENCIES:** shoulders, embankments, ditches, markings and signage, lighting, guardrails, traffic lights.

**THE FOLLOWING ARE NOT DEPENDENCIES:** power lines, gas, water or electricity lines, parking signs, electric vehicle charging stations, parking meters.

## General Rule

Dependencies of road works are included in engineering works. The plans and specifications necessary for carrying out work on dependencies of road works must be signed and sealed by an engineer. An engineer must also be entrusted with the supervision and inspection of these works.

The design, alteration, or maintenance of this type of work must take into account the risks associated with it, which mainly affect the protection and safety of users.

## Engineer's contribution according to the work carried out

The dependencies of road works can have a significant impact on the safety of users. To determine if an engineer's contribution is necessary, please refer to the table below. The list of examples provided is not exhaustive. There are also standards in this area, notably the standards of Tome V – *Signalisation routière* [Volume V – Road Signage] published by the MTQ.

Type of work	Activities	Engineer's contribution necessary?
New dependency	Signage plan on a new street; addition of road signs, addition of traffic lifts; addition of a new type of user on an existing street (e.g., implementation of a new bike lane on an existing street), excavation of a new ditch along an existing road.	YES
Alteration of an existing dependency	<b>Alteration of a dependency.</b> Examples: reprofiling or alteration of a ditch impacting drainage capacity, addition of road signs, channeling a ditch, modification of speed limits. <b>Implementation of road signs for long-term work that significantly impedes traffic flow.</b>	YES
Maintenance of existing dependencies	Maintenance of existing markings (e.g., application of a new coat of paint). Replacement of road signs with identical signs. Clean-up, clearing, cleaning and reshaping of ditches (to restore original profile).	YES
Temporary signage installation	Short-term work; ad-hoc maintenance work (e.g., maintenance work performed by utility services companies on their infrastructure); emergency work; installation of temporary signage for an event (citizen celebration, festival, parade, etc.). The personnel carrying out this work can choose the MTQ standard drawing that applies to the given situation.	NO
Other	Traffic studies to plan signage and traffic flow.	YES

# HELP WITH DECISIONS ROADS AND DEPENDENCIES

## FAQ

### Does work covered by plans and specifications prepared by an engineer need to be supervised by an engineer?

- Supervision of work ensures that the work has been carried out according to the plans and specifications. Although the OIQ strongly recommends it, it is not mandatory in Quebec. However, when supervision is done, it must be done by an engineer.
- If certificates, certifications of compliance, or supervisory reports are required, they must be signed and sealed by an engineer.

### Can the municipality itself monitor the work carried out on the road works?

- A municipality may, without an engineer being present, supervise the work **that it carries out itself**, insofar as the work is for **minor repairs** that **do not alter the original design** of the works.
- For work that has the effect of altering the design of the road or its dependencies, the supervisory activities must be done by an engineer.

### Signage: use of standard drawings from Tome V – *Signalisation routière* [Volume V – Road Signage] published by the MTQ

- Minor work (short duration, minor obstruction, or mobile work): When a standard drawing is selected from Tome V [Volume V] and applied as is, or when the work does not require the preparation of a plan, no contribution from an engineer is necessary.
- Major work: This work requires the preparation of a signage plan by an engineer. The selection of a standard drawing from Tome V [Volume V] must be made by an engineer, as the parameters must be determined according to the conditions (speed, visibility, road geometry, private access, etc.).
- At all times, if the standard drawing in Tome V [Volume V] is not followed to the letter, a signage plan must be signed and sealed by an engineer.

### Exclusion

Nothing in the *Engineers Act* prevents a person from contributing, as an employee and **under the supervision of an engineer**, to the preparation or modification of plans, estimates, reports, calculations, studies, drawings, operating or maintenance manuals, decommissioning plans or specifications.

### Maintenance work

If the work consists of minor maintenance that is intended to restore the work to its initial state without altering its structure, design, or materials, then it can be planned and carried out by any person competent in the field. However, if the work alters the design, materials, or structure of the road or its dependencies, or if no plans describing the initial state exist, then the preparation of the plans will be reserved for an engineer.

A municipality could ask an engineer to prepare procedures or methods of intervention to carry out certain maintenance work (e.g., filling/sealing cracks).

### Inspection of road works

The inspection of road works and the use of indices such as the surface degradation index, the ride comfort index, or the depth of ruts make it possible to objectively assess the condition of road works and plan maintenance or rehabilitation work. An inspection report that includes only observations and findings does not need to be signed by an engineer. A report that includes opinions and recommendations, on the other hand, does need to be signed by an engineer.