



Using or allowing the use of plans and specifications that have not been signed and sealed by an engineer is a penal offence whenever these documents relate to a work subject to the *Engineers Act*. Therefore, it is important to understand which buildings are subject to the Act and which plans must be prepared by engineers.

Does the Engineers Act require municipalities to receive plans before they may issue a building permit?

No. However, municipalities that do require the submission of plans before issuing a permit must ensure that the plans are signed and sealed where required by the Act. Municipalities are not responsible for validating the content of the plans.

Anyone who carries out work subject to the Act will need to have plans that have been signed and sealed by an engineer, even if the municipality concerned has not required the submission of such plans to issue the permit.

General Rule

The plans and specifications for the **structural components** and **mechanical, electrical and thermal systems** of buildings subject to the Act must be signed and sealed by an engineer.

A FEW EXEMPLES OF STRUCTURAL COMPONENTS
Foundation, framework, mechanical roof trusses, balconies, floor trusses, bearing walls.

A FEW EXEMPLES OF MECHANICAL, ELECTRICAL OR THERMAL SYSTEMS
Plumbing, heating, building electricity, air conditioning, ventilation, fire protection, elevators..

Buildings are subject to the *Engineers Act* depending on their use and dimensions.

Public use	Residential use	Commercial use	Industrial use	Agricultural use
Assembly occupancies (A)* care, treatment, or detention occupancies (B)*	Residential occupancies (C)*	Business and personal service occupancies (D)* Mercantile occupancies (E)*	Industrial occupancies (F)*	Agricultural occupancies
Examples: libraries, schools, day care centres, medical clinics, police stations, prisons, hospitals	Examples: apartments, condos, houses, hotels/motels, monasteries, convents	Examples: shops, hardware stores, hair or beauty salons, law firms, dental offices, banks, supermarkets	Examples: factories and plants, laboratories, warehouses, workshops, repair garages, service stations	Examples: barns, stables, hen houses, silos, livestock waste storage facilities, agricultural machinery garage
SUBJECT TO THE ACT	SUBJECT TO THE ACT BASED ON CRITERIA (Appendix A)	SUBJECT TO THE ACT BASED ON CRITERIA (Appendix A)	SUBJECT TO THE ACT	SUBJECT TO THE ACT BASED ON CRITERIA (Appendix B)

* These letters are taken from the Building Code

We thank the following associations for their participation in preparing this document:



Frequently asked questions

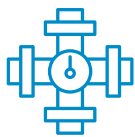


Small residential and commercial buildings with light wood frames

If an element of the building is designed according to the complete acceptable solutions in Part 9 of the *National Building Code* (NBC), it is not necessary for the plans to be prepared by an engineer because the NBC provides all the information required to ensure a safe design. If Part 9 **is not or cannot be applied** or does not contain a complete acceptable solution for part of the building, **an engineer will need to prepare the plans.**

CASES WHERE THERE IS NO COMPLETE ACCEPTABLE SOLUTION IN PART 9 OF THE NBC

- Foundations in permafrost soil
- Piled foundations
- Steel structures
- Concrete frameworks
- Engineered wood structures
- Roof trusses
- Buildings in extreme seismic zones
- Underpinning work



Piping and electrical plans

The *Act* states that plans for electrical, mechanical and thermal systems in a building subject to the *Act* must be prepared by engineers. However, the *Act* does not preclude certain people from preparing these plans, on certain conditions:

- Plans for [piping installations](#) may be prepared by a master pipe mechanic who is a member of the CMMTQ. These contractors may prepare plans, only for the work they execute themselves.
- Plans for [electrical installations](#) in buildings may be prepared by a master electrician who is a member of the CMEQ. These contractors may prepare plans, only for the work they execute themselves.



Silos

Silo design

Silos are subject to the *Engineers Act*. When silo plans are prepared in Quebec, they must be prepared, signed and sealed by an engineer.

Silo installation

For the installation of a prefabricated silo, plans and instructions provided by the builder may be used. If the installation requires a concrete foundation to be poured, preparing the plans for that part of the installation is actually a reserved act under the *Engineers Act*.



Renovation work

If the project does not involve any changes to the engineering features of the building (structure as well as mechanical, thermal and electrical systems), the plans will not need to be prepared by an engineer.

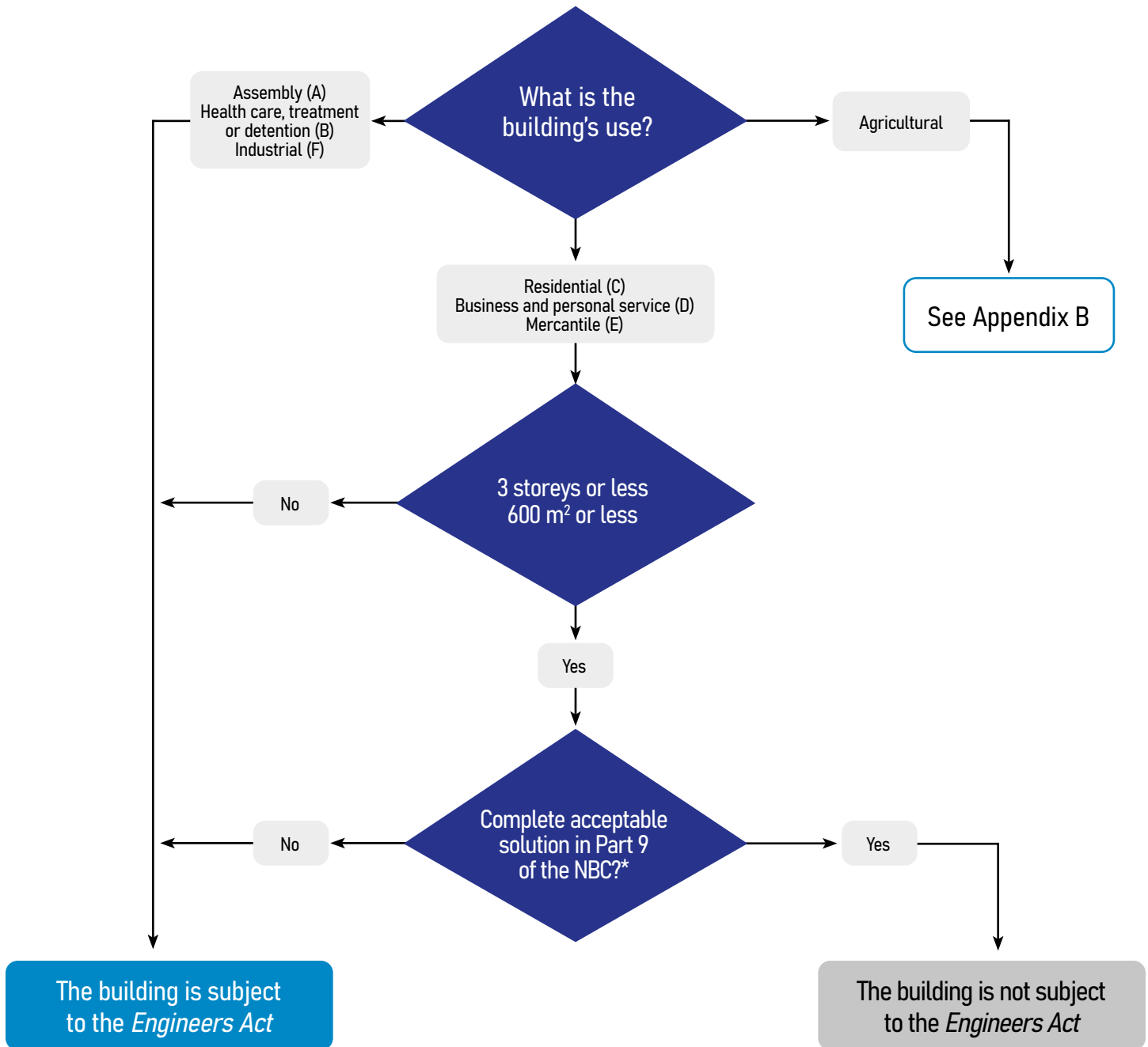
In the case of enlargement work on a building, the dimensions of building area, building height or height of the wall studs after the work determine if the building is subject to the *Act*. Refer to the appendices for guidance.



Accessory buildings (residential use) – e.g. sheds, garages, pavilions

Residential garages and other buildings that are completely detached from the residence, but are built on the same land and intended for the personal (not commercial) use of the residents, are considered residential use. If complete acceptable solutions from Part 9 of the NBC are applied, the plans do not have to be prepared by an engineer.

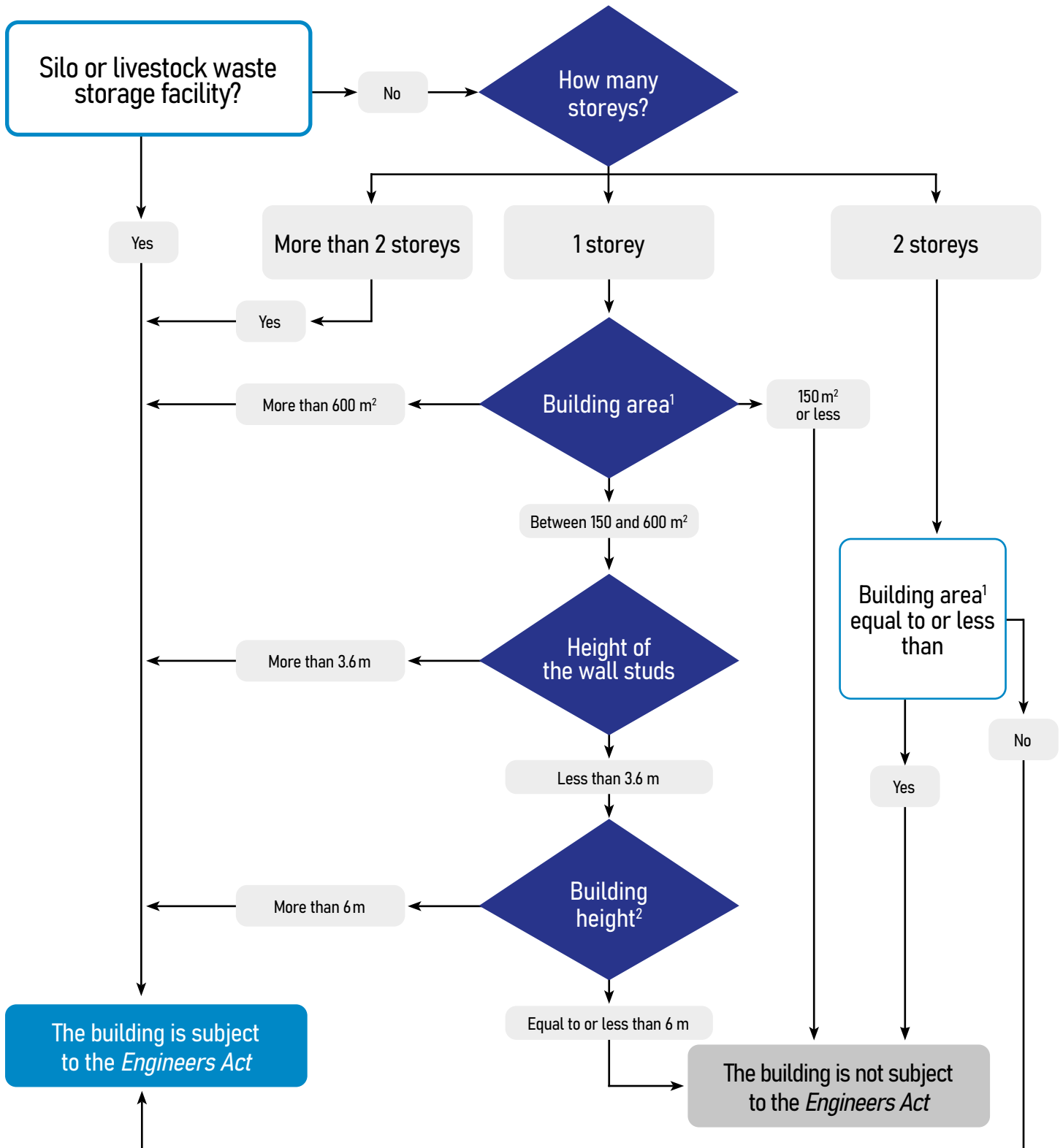
For accessory buildings that do not have a residential use, the decision should be made on a case-by-case basis.



"Building area" means the largest horizontal surface of the building above average ground level, measured between the outside of exterior walls or between the outside of exterior walls and the centre line of firewalls.

If the municipality is unable to determine if complete acceptable solutions have been employed, it should inquire with the plan's author, such as by requiring an official confirmation of this information in the event where the plan has not been signed and sealed by an engineer.

***Complete acceptable solution:** The term "acceptable solution" refers to the technical provisions contained in the National Building Code (NBC). Acceptable solutions represent the minimum level of performance that will satisfy the NBC's objectives (NBC, 2010, p. 10). The addition of the term "complete" ensures that any reference to a different part of the Code or another document will automatically result in the use of an engineer in order to assure the quality and safety of the design.



¹"Building area" means the largest horizontal surface of the building above average ground level, measured between the outside of exterior walls or between the outside of exterior walls and the centre line of firewalls.

²"Height" is measured from grade average ground level to its roof ridge.

Note: The dimensions that must be used are the dimensions after the work has been completed.