



## **CITY COUNCIL REPORT**

**TITLE:**

**AMEND REGULATION GOVERNING AUGER INSTALLED STEEL PILES**

**PRESENTER:**

Murray Fischer

**DEPARTMENT:**

Planning & Buildings

**ATTACHMENTS:**

**DATE:**

11/26/2025

**CLEARANCE / APPROVALS:**

Ryan Nickel                  General Manager

Dave Wardrop              City Manager

**RECOMMENDATION(S):**

That the Residential Auger-Installed Steel Piles Regulation 003 under Building By-law No. 7258 be amended to include exceptions to engineer requirements as attached.

**BACKGROUND:**

Previously, the regulation required every situation where auger-installed steel piles were installed to have an engineer involved in the sizing and spacing of the steel piles. This requirement is problematic for small projects such as decks and stairs or ramps, due increased cost for the engineering.

**ANALYSIS:**

A major supplier of steel piles recently contacted the City of Brandon to express concerns regarding the current requirement for engineering approval of steel piles used in deck construction. The supplier indicated that this requirement would prevent them from participating in projects within the city. Losing a key supplier could significantly impact residents' ability to access an affordable and structurally sound option for building decks, stairs, and ramps. This concern prompted a review of the regulation to identify ways to reduce barriers for homeowners seeking cost-effective solutions.

The engineering requirement originated from a bulletin issued by the Canadian Construction Materials Centre (CCMC), a division of the National Research Council that provides guidance on construction material standards. After consultation with CCMC, the Planning & Buildings Department determined that the requirement could be removed for certain specific situations without compromising safety.

To establish an appropriate alternative, staff examined policies adopted by the City of Winnipeg. Aligning Brandon's approach with Winnipeg's standards was deemed suitable, as it promotes consistency and provides a legally defensible framework already in use in a comparable jurisdiction.

**LEGISLATIVE REQUIREMENTS:**

The Building By-law No. 7258 includes regulations governing different aspects of construction in Brandon. A resolution of Council is required to amend a regulation to the building by-law.

**STRATEGIC ALIGNMENT:**

These changes will help improve access to safe and affordable options for citizens to improve their properties without compromising safety.

**FINANCIAL IMPACT:**

There will be no financial impact to the City.

**RISK ASSESSMENT:**

Removing the engineering requirement for steel piles supporting residential decks, stairs, ramps, and sheds is expected to introduce little to no additional liability or risk to the City. These structures typically rely on surface pads for adequate support, and the proposed change does not alter the design or structural integrity of the supported elements themselves. Furthermore, City inspectors are already well trained in reviewing submittals and conducting inspections for steel pile installations, ensuring compliance with existing standards.

**COMMUNICATION STRATEGY:**

Communication through the Development Services Bulletin service will inform local contractors and residents of the change and provide guidance on the requirements for engineers and additional legislative requirements for steel piles.

**CONCLUSION:**

That council approve the proposed change to the Auger-Installed Steel Piles Regulation to remove engineering requirement for small residential accessory structures such as sheds, decks and ramps.

## RESIDENTIAL AUGER-INSTALLED STEEL PILES

In accordance with the City of Brandon’s building regulations, auger-installed steel piles—also known as screw or helical piles—must meet specific engineering and certification standards when used in residential applications. These piles are permitted for structures such as single detached dwellings, duplexes, row housing, one-storey additions, accessory buildings, decks, and ramps.

For installations where the bearing capacity does not exceed 5,000 lbs per pile, sealed engineering plans and certification may not be required depending on the construction type. However, any application exceeding this load threshold mandates sealed plans and a letter of certification from a licensed professional engineer.

All piles must conform to CCMC evaluations when applicable, including installation in cohesive soils and adherence to specified conditions and limitations. If the piles are not CCMC-evaluated, their specifications must be submitted under an engineer’s seal, confirming compliance with ASTM standards and the 2024 Manitoba Building Code (MBC), including clauses 4.2.3.8(1)(e), 4.2.3.10(1), 4.2.4.1(1), and 9.4.1.1(1)(c)(i).

The table and its associated notes below demonstrate the City of Brandon’s requirements when augured piles are used for foundations in residential applications.

REQUIREMENTS FOR AUGURED PILE INSTALLATIONS				
Application (Bearing Capacity per pile)	Construction Applications <sup>(3)</sup>	Evaluation <sup>(1)</sup>	Sealed Plans <sup>(7)</sup>	Engineer Certification <sup>(2)</sup>
Up to a maximum allowable 5000 lbs /pile <sup>(8)</sup>	New Construction <sup>(4)</sup>	✓	✓	✓
	One-Storey Additions <sup>(5)</sup>	✓	✓	✗
	Accessory Structures <sup>(6)</sup>	✓	✗	✗
	Decks	✓	✗	✗
	Ramps	✓	✗	✗
Greater than 5000 lbs /pile <sup>(8)</sup>	Any residential application	✓	✓	✓

Table notes:

1. Augured piles that are evaluated by CCMC must be evaluated in cohesive soils and must bear the CCMC evaluation number and manufacturer’s identification (including model). Installation must be carried out in conformance with the CCMC evaluation’s “conditions and limitations.” (See also below section “Supplementary information for non-CCMC evaluated augured pile manufacturers.”)
2. “Engineer’s certification” is a letter of certification for the foundation provided and sealed by the foundation design engineer.
3. The referenced construction types may be separate or attached to the main dwelling.
4. New construction includes but is not limited to single detached dwellings, duplexes, row housing.
5. Single-storey additions with no basement, also includes 3- and 4-season sunrooms, mudrooms, porches, etc.
6. Accessory structures may include carports, gazebos, sheds, etc. These structures are single-storey only.
7. “Sealed plans” are drawings sealed and signed by a professional engineer licensed to practice in the Province of Manitoba. They must indicate the manufacturer, model number and capacity of the piles. (See also below section “Supplementary information for non-CCMC evaluated augured pile manufacturers.”)

## RESIDENTIAL AUGER-INSTALLED STEEL PILES

8. Augured piles supporting concentrated loads loading exceeds 22 kN (5,000 lbs.) per pile require sealed plans and engineer certification.

### Supplementary information for non-CCMC evaluated augured pile manufacturers

If a product does not carry a CCMC evaluation, the product's specifications (including manufacturer's identification and model number) must be submitted under the seal of a professional engineer licensed to practice in Manitoba, and indicate that the piles have been tested to ASTM D 1143, ASTM D 3689 and/or ASTM D 3966 (latest editions), for maximum load(s) of\_\_\_\_, and is acceptable for use in cohesive soils. In addition to specifying the conditions and limitations of the product, the engineer should also indicate that the piles comply to the 2024 MBC for:

- a. Clause 4.2.3.8.(1)(e)
- b. Sentence 4.2.3.10.(1)
- c. Sentence 4.2.4.1.(1)
- d. Subclause 9.4.1.1.(1)(c)(i)

When sealed plans include products which are not CCMC evaluated, or do not have the equivalent information provided under note 1), the engineer will be responsible to certify that the specified piles have been tested to ASTM D 1143, ASTM D 3689 and/or ASTM D 3966 (latest editions), for the applicable loads and are acceptable for use in the soil located at the site. In addition to specifying the conditions and limitations of the product, the engineer should also indicate that the pile(s) comply to the 2024 MBC for:

- a. Clause 4.2.3.8.(1)(e)
- b. Sentence 4.2.3.10.(1)
- c. Sentence 4.2.4.1.(1)
- d. Subclause 9.4.1.1.(1)(c)(i)

The City of Brandon's By-law can be viewed here: [Building By-law No. 7258c](#)

The CCMC Technical Bulletin - Auger-Installed Steel Pile Foundations can be found here: [Auger – Installed Steel Pile Foundations](#)

The 2020 National Building Code can be viewed here: [National Building Code of Canada 2020](#)

The latest edition of the Manitoba Amendments to the National Building Code (Regulation 78/2023) can be found here: [Manitoba Building Code, M.R. 78/2023](#)

## BLDREG-003 - RESIDENTIAL AUGER-INSTALLED STEEL PILES

Authority: Building By-law No. 7258

Covers: All persons required to obtain a Building Permit in accordance with the Building By-law for the construction, design and installation of Auger-Installed Steel Piles that support residential buildings or structures.

Effective: ~~January 1, 2020~~ December 16, 2025

Purpose: To establish provisions with respect to the construction, design and installation of steel piles for which a Building Permit is required.

Author: Murray Fischer, Manager of Building Safety and designated Authority Having Jurisdiction with respect to the Building By-law

### 1. Definitions

- (a) Unless otherwise expressly provided or unless the context otherwise requires, words and expressions in this Regulation have the same meaning as the same words and expressions in the Building By-law.
- (b) In this Regulation:
  - (1) "PROFESSIONAL ENGINEER" means an engineer or firm licensed by Engineers Geoscientists Manitoba to practice in the province of Manitoba and skilled in the appropriate section of work concerned.

### 2. Permit Requirements

- (a) The foundation/support of any residential building or structure that is supported by, or on auger-installed steel piles requires a building permit.

### 3. Construction and Design

- (a) All steel piles shall be designed and constructed as herein provided and in accordance with Part 4 of the Code, and be performed by a professional engineer.
- ~~(b)~~ An engineer is not required when auger-installed steel piles are used for accessory-use residential structures (such as decks and ramps), provided each pile has a bearing capacity of 5,000 lbs or less and all other applicable provisions of the Regulation are met.
- ~~(b)(c)~~ In all cases, a professional engineer ~~When a professional engineer is required, they~~ shall determine the number and spacing of the auger-installed steel piles required to carry all the loads.
- ~~(c)(d)~~ A signed and sealed certificate attesting to the conformity of the installation and the allowable loads for the piles shall be provided by the professional engineer.
- ~~(d)(e)~~ Every installer of the proposed auger-installed steel pile shall be certified by the manufacturer using approved equipment. The installer must follow the

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manufacturer's installation instructions and the uses and limitations specified in the CCMC Report.

- ~~(e)~~(f) Each installer is required to carry a certification card bearing their signature and photograph, and produce the certification when requested by the authority having jurisdiction.
- ~~(f)~~(g) The structural base steel shall meet the requirements of CSA G40.20/G40.21 or ASTM A 500. All welds shall conform to CSA W59-13 and be produced by certified welders in accordance with the Canadian Welding Bureau.
- ~~(g)~~(h) All steel piles shall have sufficient strength and stiffness to resist effectively all loads and effects of loads as well as such influences as may reasonably be expected during the service life and designed in accordance with CAN/CSA-S16.1.
- ~~(h)~~(i) Unless it has been proven that the site is free of corrosive conditions, all steel piles, including all accessories, are required to be hot-dipped galvanized, meeting the requirements of CAN/CSA-G164 or ASTM A123/A123M with a minimum thickness of 610 g/m<sup>2</sup>.
- ~~(i)~~(j) The determination of the presence of corrosive conditions and the specification of the corrosion protection shall be carried out by a professional engineer.
- ~~(j)~~(k) Each auger-installed steel pile shall be identified with a label that contains the manufacturer's information, reference to the material standards specified above and the CCMC registry number.

#### 4. Enforcement

In accordance with the authorities established by the Building By-law, any person who contravenes, or does not comply, or improperly complies, or only partly complies, with any provision of this Regulation commits an offence and is subject to penalty.

##### Related Information:

Building By-law No. 7258  
CCMC Technical Bulletin on Auger-Installed Steel Pile Foundations  
The Building ~~and Mobile Homes~~ Act, C.C.S.M. ~~1987~~, c. B93  
The Manitoba Building Code  
Compliance By-law No. 7198

Conflict: Where there is a conflict or inconsistency between this Regulation and provisions contained within a statute or regulation of the Government of Canada or the Province of Manitoba, the Federal or Provincial statute or regulation shall ~~supercede~~supersede those impacted provisions of this Regulation.