2017-001-S

SUPERSEDES 2016-001-S

ACCEPTANCE OF AUGERED PILES

Augered piles, also referred to as screw piles and helical piles, have limited applications. The Table and its associated notes below demonstrate the City of Winnipeg requirements when augered piles are used for foundations:

REQUIREMENTS FOR AUGERED PILE INSTALLATIONS					
APPLICATION	TYPE OF CONSTRUCTION	EVALUATION ⁽¹⁾	SEALED PLANS	ENGINEER'S CERTIFICATION (3)	GEOTECHNICAL REPORT ⁽⁴⁾
Housing ⁽⁵⁾ Applications W/ up to a max allowable 5000 lbs./pile	3- \$ 4-Season Sunrooms ⁽⁶⁾ Carports ⁽⁶⁾ Porches ⁽⁶⁾	√ ⁽¹⁾	√ ⁽²⁾	X	Х
	Decks Ramps	√ ⁽¹⁾	X ⁽⁸⁾		
All Other Applications ⁽⁹⁾	All types of construction	√ ⁽⁷⁾	√	√	✓

NOTES:

- (1) Augered 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 attached section "Supplementary information for non-CCMC evaluated augered pile manufacturers.")
- (2) "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 attached section "Supplementary information for non-CCMC evaluated augered pile manufacturers.")
- (3) "Engineer's Certification" is a letter of certification for the foundation provided and sealed by the foundation design engineer. (See acceptable wording for engineer's letter of certification.)
- (4) A geotechnical report must be a site-specific engineering report, sealed and signed by a Professional Engineer licensed to practice in the Province of Manitoba. The structural design shall be in keeping with the recommendations of the report.



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- (5) "Housing," for the purposes of this bulletin, refers to single dwellings, duplexes and row housing. The referenced construction types may be separate or attached to the main dwelling.
- (6) The 3- and 4-season sunrooms, carports and porches refer to single-storey structures only.
- (7) A CCMC Evaluation is a requirement for these applications.
- (8) Augered piles used for supporting concentrated loads from uncovered, single storey decks and ramps in housing applications where the structure size is less than 27.9 m² (300 ft²) and loading does not exceed 22 kN (5,000 lbs.) per pile do not require sealed plans to be submitted. Sealed plans will be required beyond this size.
- (9) "All other applications" refers to any structure used in a housing application not specified and/or exceeds the loading limitations indicated in the Table and in Note (6) and any structure used in a commercial application.

SUPPLEMENTARY INFORMATION FOR NON-CCMC EVALUATED AUGERED PILE MANUFACTURERS

(REFER TO NOTES ABOVE)

- (1) 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 MBC (2011) 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)
- (2) 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 MBC (2011) 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)

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