

BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing
AIBC, EGBC, BOABC

File No: 18-0149

INTERPRETATION

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Interpretation Date:	November 16, 2021
Building Code Edition:	BC Building Code 2018
Subject:	Pier-Type Foundations
Keywords:	pier-type, foundations, building height
Building Code Reference(s):	9.4.1.1., 9.15.1.1.(2), 9.15.2.3., 2.2.7.2.(1)(c)(i) of Division C

Question:

This Part 9 building is designed using pier-type foundations.

If the building height of this building exceeds 1 storey, do the pier-type foundations have to be designed to Part 4?

Interpretation:

Yes

Sentence 9.15.2.3.(1) requires that pier-type foundations be designed to support the applied loads from the superstructure. Sentences 9.15.2.3.(2) to (4) provide prescriptive requirements for the design of pier-type foundations when the building height does not exceed 1 storey.

For Part 9 buildings that exceed 1 storey in building height, the requirements of Sentence 9.15.2.3.(1) would still apply, but the prescriptive provisions of Sentences 9.15.2.3.(2) to (4) would not apply.

Article 9.15.1.1. describes the scope where Section 9.15. applies. Pier-type foundations are not mentioned in Sentence 9.15.1.1.(1), so the design of pier-type foundations must be based on Sentence 9.15.1.1.(2) which refers to Section 9.4.

Clause 9.4.1.1.(1)(a) permits the structural design to be based on the requirements provided elsewhere in Part 9. Since there are no prescriptive provisions in Part 9 for the design of pier-type foundations in Part 9 buildings that exceed 1 storey in building height, the appropriate design procedure is stated in Clause 9.4.1.1.(1)(c) which requires the design to be in accordance with Part 4 using loads, deflection and vibration limits of either Part 9 or Part 4. Note that Subclause 2.2.7.2.(1)(c)(i) of Division C would require the structural design of the pier-type foundations to be designed by a registered professional when the building height exceeds 1 storey.



Patrick Shek, P.Eng., CP, FEC, Committee Chair

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