



REGIONAL DISTRICT OF NORTH OKANAGAN

Steel Structure Requirements

Revised: September 2021

Required Information for Steel Structure Building Permit Applications

In order to receive a building permit for a steel structure it is the responsibility of the owner or builder to ensure that the following documents are submitted:

- from the Structural Engineer, who is responsible for the structure; Certificate of design and manufacturing conformance, Schedule B, a copy of their certificate of insurance, report on professional insurance and two (2) sets of engineered sealed drawings (at a scale of 1:50 or 1/4" = 1'-0").
- from the Structural Engineer, who is responsible for the field review and foundation (if different than the above mentioned structural engineer); Schedule B, a copy of their certificate of insurance and report on professional insurance.

These requirements are in addition to the standard building permit application submission requirements.

Attachments: Certificate of Design and Manufacturing Conformance with NBC 2015 form

**For more information please contact the Building Department:
Phone - 250-550-3700. Email – building@rdno.ca**

[Company logo inserted here - Optional]

Certificate of Design and Manufacturing Conformance with NBC 2015

This Certificate is to affirm that all components of the Steel Building System described below, to be supplied by the named Manufacturer certified in accordance with CSA-A660, have been or will be designed and fabricated in accordance with the following Standards to carry the loads and load combinations specified.

1. DESCRIPTION

Manufacturer's Name and Address _____
Manufacturer's Certificate No. under CSA A660 _____
Customer Order Number _____
Building Type and Size _____
Intended Use and Occupancy _____
Importance Category (*NBC, Sentence 4.1.2.1(3)*) _____
Site Location _____
Applicable Building Code _____
Builder's Name and Address _____
Owner's Name and Address _____

2. DESIGN STANDARDS

Engineer's Initials*

National Building Code of Canada 2015, Part 4: Structural Design _____
CAN/CSA-S16-14, Design of Steel Structures _____
CAN/CSA-S136-12, North American Specification for the Design of Cold-Formed Steel Structural Members _____
Other (specify) _____ dated _____

3. MANUFACTURING STANDARDS

- (a) Fabrication has been, or will be, in accordance with CAN/CSA-S16 and CAN/CSA-S136, as applicable.
- (b) Welding has been or will be performed in accordance with CSA-W59 and CAN/CSA-S136, as applicable.
- (c) The Manufacturer has been certified in accordance with CSA-W47.1, for Division 1 or 2 and/or CSA-W55.3 if applicable.
- (d) Welders have been qualified in accordance with CSA-W47.1.

4. PURLIN STABILITY

Purlin braces are provided in accordance with CAN/CSA-S136, Clause D3 and Appendix B, Clause D3.2.2. In particular, for a standing seam roof supported on movable clips, braces providing lateral support to both top and bottom purlin flange have been or will be provided. The number of rows is determined by analysis but in no case is less than 1 for spans up to 7m inclusive or less than 2 for spans greater than 7m.

5. LOADS

(a) Snow and Rain Load

1-in-50 year ground snow load, S_s , _____ (kPa) _____
1-in-50 year associated rain load, S_r , _____ (kPa) _____
Wind exposure factor, C_w , _____
Importance factor, I_s , _____
Roof snow load, S , _____ (kPa) _____
Drift load considered (*NBC Sub-section 4.1.6.2.8*) refer to drawing of specific building
Specified rain load (*NBC, Article 4.1.6.4*) _____ (mm)

*Initial each true statement. Mark N/A if statement does not apply.

(Continued)

(b) Full and Partial Snow Load

- (i) Applied on any one and any two adjacent spans of continuous purlins.
- (ii) Applied on any one and any two adjacent spans of modular rigid frames with continuous roof beams.
- (iii) Applied as described for the building geometry in *NBC*, Article 4.1.7.6.

(c) Wind Load

1-in-50 year reference velocity pressure _____ (kPa)
 Importance factor, I_w , _____

(d) Wind Load Application

- (i) Applied as per *NBC*, Part 4, Sub-section 4.1.7.
- (ii) External pressure coefficients per *NBC*, Article 4.1.7.6 and Figures 4.1.7.6.-A thru 4.1.7.6.-H.
- (iii) Building internal pressure coefficients _____ per *NBC*, Article 4.1.7.7.

(e) Crane Loads (where applicable)

Type _____ (top-running) (under-running) (jib)
 Capacity _____ (tonnes)
 Wheel base _____ (m)
 Maximum static, vertical wheel load _____ (kN)
 Vertical impact factor _____
 Lateral factor _____ (%) lateral wheel load _____ (kN)
 Longitudinal factor _____ (%) maximum longitudinal load _____ (kN/side)

(f) Mezzanine Live Load _____ (kPa)

(g) Earthquake Load

Applied as per *NBC*, Part 4, Sub-section 4.1.8.
 $S_a(0.2)$ _____ $S_a(0.5)$ _____ $S_a(1.0)$ _____ $S_a(2.0)$ _____ $S_a(5.0)$ _____ $S_a(10.0)$ _____ PGA _____
 F_a _____ F_v _____ I_E _____

(h) Other Live Loads (specify)

(i) Dead Loads

Dead load of building components is incorporated in the design
 Collateral load (mechanical, electrical, ceiling, sprinklers, etc) _____ (kPa)
 Mezzanine _____ (kPa)
 Other (specify) _____ ()

(j) Load Combinations

Applied in accordance with *NBC*, Part 4 Section 4.1.

6. GENERAL REVIEW DURING CONSTRUCTION

The Manufacturer does not provide general review during construction for regulatory purposes.

* Initial each section. Mark N/A if statement or section does not apply.

7. CERTIFICATION BY ENGINEER

I _____, a Professional Engineer registered or licensed to practice in the Province or Territory of _____, hereby certify that I have reviewed the design and manufacturing process for the steel building system described. I certify that the foregoing statements, initialed by me, are true.

Name _____ Signature _____
 Title _____
 Affiliation _____ Date _____

Professional Seal