

HOME-RAIL LTD. PRODUCT EVALUATION

PRODUCT EVALUATED
HOME-RAIL RAILING SYSTEMS

EVALUATION PROPERTY
2012 ONTARIO BUILDING CODE

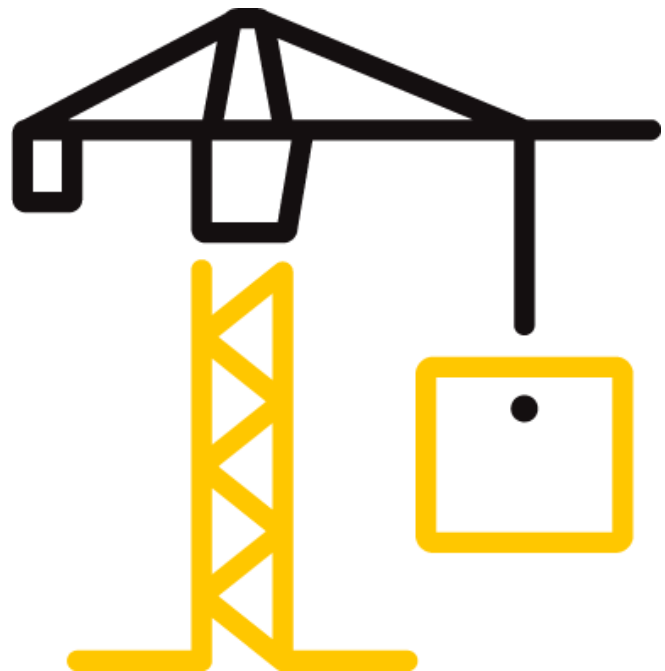
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PRODUCT EVALUATION FOR HOME-RAIL LTD.

Report No.: 103450762COQ-001

Date: 03/29/18

PRODUCT EVALUATION RENDERED TO:

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1 Introduction

Intertek Testing Services NA Ltd. (Intertek) is conducting a product evaluation for Home-Rail Ltd. (Home-Rail), on various Home-Rail railing systems and components, to evaluate code compliance per the 2012 Ontario Building Code (OBC). The evaluation is being conducted to determine if the evaluated Home-Rail system will meet the load requirements per the 2012 OBC. Other applicable sections of the 2012 OBC have not been reviewed in this evaluation.

2 Product and Assembly Description

2.1. Product and Assembly Description:

Intertek has conducted testing on the following Home-Rail railing systems. Details of the systems, tests and requirements are summarized in tabular format below.

System Description ¹	Intertek Test Report No.	Code Sections
<u>System 1:</u> 6-foot picket railing system	102040571COQ-002, dated March 5, 2015	Article 9.8.8.2. of the 2010 National Building Code of Canada
<u>System 2²:</u> 2-1/4 inches by 2-1/4 inches post	103298615COQ-001, dated November 14, 2017	Article 4.1.5.14., , Sentence 1), Clause c) of the 2015 National Building Code of Canada Article 4.1.5.14., Sentence 1), Clause c) of the 2014 Alberta Building Code
<u>System 3²:</u> 6-foot top rail with wall mount bracket	103298615COQ-001A, dated November 14, 2017	Article 4.1.5.14., Sentence 1), Clause c) of the 2015 National Building Code of Canada Article 4.1.5.14., Sentence 1), Clause c) of the 2014 Alberta Building Code
<u>System 4²:</u> 6-foot top rail with wall mount bracket	103298615COQ-001A, dated November 14, 2017	Article 4.1.5.14., Sentence 1), Clause c) of the 2015 National Building Code of Canada Article 4.1.5.14., Sentence 1), Clause c) of the 2014 Alberta Building Code

¹Refer to each respective test report for details of the systems above.

²Systems 2, 3, 4 were evaluated for concentrated load only.

2.2. Product and Assembly Traceability:

Intertek did not select the specimens and has not verified the composition, manufacturing techniques or quality assurance procedures. The specimens were submitted to Intertek directly by the client and Intertek accepts no responsibility for any inaccuracies therein.

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2.3. Product and Assembly Certification:

Intertek does not currently certify the Home-Rail systems evaluated within this report.

Authorities Having Jurisdiction (AHJ) should be consulted in all cases as to the particular requirements covering the installation and use of Intertek certified products, equipment, systems, devices and materials. The AHJ should be consulted before construction. Fire resistance assemblies and products are developed by the design submitter and have been investigated by Intertek for compliance with specific requirements. The published information (product and design listings) cannot always address every construction nuance encountered in the field. When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the test standard referenced for each Intertek certified product. The test standard includes specifics concerning alternate materials and alternate methods of construction. Only products which bear Intertek's Mark are considered as certified. The appearance of a company's name or product in Intertek Directory of Listed Building Products does not in itself assure that products so identified have been manufactured under Intertek's Follow-Up Service. Only those products bearing the Intertek Mark should be considered to be Listed and covered under Intertek's Follow-Up Service. Always verify the Mark on the product before using it.

3 Reference Documents

As part of this evaluation, Intertek has directly or indirectly used the following referenced documents:

- 2010 National Building Code of Canada (2010 NBC)
- 2015 National Building Code of Canada (2015 NBC)
- 2014 Alberta Building Code (2014 ABC)
- 2012 Ontario Building Code (2012 OBC)
- Intertek Test Report No. 102040571COQ-002, dated March 5, 2015
- Intertek Test Report No. 103298615COQ-001, dated November 14, 2017
- Intertek Test Report No. 103298615COQ-001A, dated November 14, 2017

4 Evaluation Method

The scope of this evaluation is to examine the test data contained within the test reports referenced above, and determine if they are applicable to the 2012 OBC. The scope is limited to the load performance sections only.

System 1, Intertek Test Report 102040571COQ-002, dated March 5, 2015

The Home-Rail 6 ft. railing system described in Section 2 of this evaluation as System 1 was tested to load requirements of Article 9.8.8.2. in the 2010 NBC. It was recorded in the test report that the system evaluated complied to the load requirements to this 2010 NBC Article.

Intertek has reviewed the above-mentioned Article of the 2010 NBC in juxtaposition to Article 9.8.8.2. in the 2012 OBC. The review is summarized in tabular format below.

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Article	Load Requirements	
	2010 NBC	2012 OBC
9.8.8.2. Loads on Guards Sentence 1)	<i>Horizontal load applied inward or outward at any point at the minimum required height of the guard.</i>	
For guards within dwelling units and exterior guards serving not more than 2 dwelling units.	0.5 kN/m or concentrated load of 1.0 kN applied at any point.	0.5 kN/m or concentrated load of 1.0 kN applied at any point.
	<i>Horizontal load applied inward or outward on elements within the guard, including solid panels and pickets.</i>	
	0.5 kN applied over a maximum width of 300 mm and a height of 300 mm.	0.5 kN applied over a maximum width of 300 mm and a height of 300 mm.
	<i>Evenly distributed vertical load applied at the top of the guard.</i>	
	1.5 kN/m	1.5 kN/m

Based on information contained within the table above, it can be concluded that the 2010 NBC has equal load requirements to the 2012 OBC under Article 9.8.8.2. Therefore, in the event of a load test on the same Home-Rail 6 ft. Picket Railing System tested under Intertek Test Report 102040571COQ-002, the specimen would meet the load requirement of Article 9.8.8.2. of the 2012 OBC.

System 2, Intertek Test Report 103298615COQ-001, dated November 14, 2017

The Home-Rail 2-1/4 inches by 2-1/4 inches post described in Section 2 of this evaluation as System 2 was tested to load requirements of Article 4.1.5.14., Sentence 1), Clause c) in the 2014 ABC and Article 4.1.5.14., Sentence 1), Clause c) in the 2015 NBC. It was recorded in the test report that the system evaluated complied to the load requirements of the respective articles referenced in this paragraph.

Intertek has reviewed the above mentioned Articles of the 2014 ABC and the 2015 NBC in juxtaposition to Article 4.1.5.14., Sentence 1), Clause c) in the 2012 OBC. The review is summarized in tabular format below.

Article	Load Requirements		
	2014 ABC	2015 NBC	2012 OBC
4.1.5.14 Loads on Guards Sentence 1), Clause a)	<i>Horizontal load applied inward or outward at the minimum required height</i>		
	0.75 kN/m or a concentrated load of 1.0 kN applied at any point	0.75 kN/m or a concentrated load of 1.0 kN applied at any point	0.75 kN/m or a concentrated load of 1.0 kN applied at any point

It should be noted that Clauses a) and b) of Sentence 4.1.5.14. (1) refer to means of egress and equipment access walkways. These clauses therefore are not applicable to the Home-Rail product evaluated in this report.

Based on information contained within the table above, it can be concluded that Article 4.1.5.14., Sentence 1), Clause c) of the 2014 ABC and the 2015 NBC have equal load requirements to that of Article 4.1.5.14., Sentence 1), Clause c) of the 2012 OBC. Therefore, in the event of a load test on the same Home-Rail 2-1/4 inches by 2-1/4 inches post tested under Intertek Test Report 103298615COQ-001, the specimen would meet the load requirement of the Article 4.1.5.14., Sentence 1), Clause c) in the 2012 OBC.



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System 3 and System 4, Intertek Test Report 103298615COQ-001A, dated November 14, 2017

Based on similar rationale discussed under System 2 above, it can be concluded that in the event of a load test on the same Home-Rail 6-foot top rail with wall mount bracket tested under Intertek Test Report 103298615COQ-001A, the specimen would meet the load requirements of Article 4.1.5.14., Sentence 1), Clause c) in the 2012 OBC.

Intertek makes no claim of continued compliance to the Codes, as the products are not under Intertek certification.

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5 Conclusion


Intertek has conducted a product evaluation for Home-Rail Ltd. (Home-Rail), on various Home-Rail railing systems and components, to evaluate code compliance per the 2012 Ontario Building Code (OBC). The evaluation was conducted to determine if the evaluated Home-Rail system will meet the load requirements per the 2012 OBC. Other applicable sections of the 2012 OBC have not been reviewed in this evaluation.

Based on the information contained and referenced herein, it is Intertek's professional judgment based on sound engineering principles that the following is true:

- The load requirements of the 2010 National Building Code of Canada, Div. B, Part 9, Article 9.8.8.2., Sentence 1) is equal to those of the 2012 Ontario Building Code, Div. B, Part 9, Article 9.8.8.2., Sentence 1).
- The concentrated load requirement of the 2014 Alberta Building Code, Part 4, Div. B, Article 4.1.5.14. Sentence 1), Clause a) is equal to that of the 2012 Ontario Building Code, Part 4, Div. B, Article 4.1.5.14., Sentence 1), Clause a).

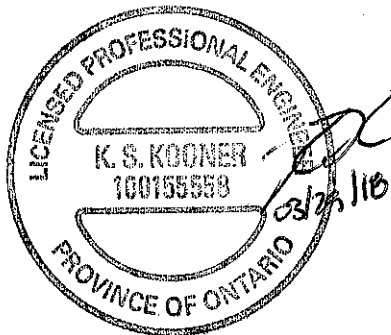
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6 APPENDIX



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7 LAST PAGE & REVISION SUMMARY

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March 29, 2018	Original	L. Kong	K. Kooner