

CENDEK RAILINGS LTD.

TEST REPORT

SCOPE OF WORK

REPORT OF 5 FT. PRIVACY WALLS TESTED IN ACCORDANCE WITH ASTM E935-21,
*STANDARD TEST METHODS FOR PERFORMANCE OF PERMANENT METAL RAILING
SYSTEMS AND RAILS FOR BUILDINGS*

REPORT NUMBER

105626012COQ-001A

TEST DATE

11/22/23 – 11/28/23

ISSUE DATE

12/15/23

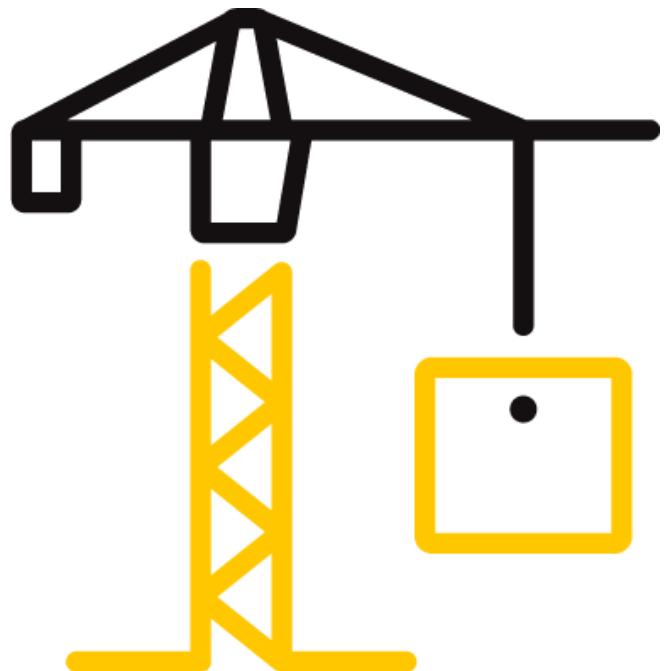
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TEST REPORT FOR CENDEK RAILINGS LTD.

Report No.: 105626012COQ-001A

Date: 12/15/23

REPORT ISSUED TO CENDEK RAILINGS LTD.

9685 Agur St.
Summerland, BC, V0H 1Z2
Canada

SECTION 1 SCOPE

Intertek Building & Construction (B&C) was contracted by Cendek Railings Ltd., 9685 Agur St., Summerland, BC, V0H 1Z2, Canada, to perform testing on their Privacy Walls in accordance with ASTM E935-21, *Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings*. The scope of the testing as requested by Cendek Railings Ltd., was to assess the ability of the guard systems to resist the load requirements of Section 4.1.5.14 and Section 9.8.8.2 of the 2020 NBC, 2012 OBC, 2018 BCBC, and 2019 NBC-AE. Results obtained are tested values. Testing was conducted at the Intertek test facility in Coquitlam, BC, Canada in November 2023.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule also called "Shared Risk approach," of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

For INTERTEK B&C:

COMPLETED BY:	Chris Chang, P.Eng.	REVIEWED BY:	Baldeep Sandhu
TITLE:	Sr. Tech – Building & Construction	TITLE:	Manager – Building & Construction
SIGNATURE:		SIGNATURE:	
DATE:	12/15/23	DATE:	12/15/23

EGBC Permit No.: 1000953

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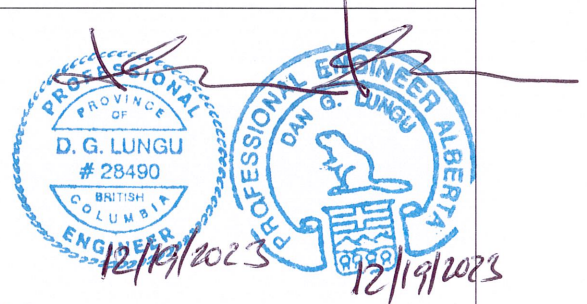
Engineer's Disclaimer:

- Intertek Engineers do not assume professional responsibility of Engineer of Record.
- Compliance to Building Codes must be approved by the Engineer of Record or Authority Having Jurisdiction.
- Intertek Engineer's seal and signature is limited to the review of applicable code required loads, review of test setup, and witnessing of laboratory testing.
- Additional disclaimers are shown in Notes of Section 7 and Section 8

Engineers Approval Stamp



Kal Kooner, P.Eng.
EGBC Permit No.: 1000953
Director, Building & Construction
Intertek



Dan Lungu, P.Eng.
EGBC Permit No.: 1000953
Engineer, Building & Construction
Intertek

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SECTION 2

SUMMARY OF TEST RESULTS

SYSTEM DESCRIPTION	TEST	PASS/FAIL
Privacy Wall – Deck Mount (5 ft. o/c span)	In-fill Load	Pass
	Vertical Uniform Load Test	Pass
	Horizontal Uniform Load Test	Pass
	Horizontal – Mid-Span Concentrated Load	Pass
	Horizontal – Adjacent to Post Concentrated Load	Pass
	Horizontal – Top of Post Concentrated Load	Pass
	Size of Opening	N/A
Privacy Wall – Fascia Mount (5 ft. o/c span)	In-fill Load	Pass
	Vertical Uniform Load Test	Pass
	Outward-Horizontal Uniform Load Test	Pass
	Outward-Horizontal – Mid-Span Concentrated Load	Pass
	Outward-Horizontal – Adjacent to Post Concentrated Load	Pass
	Outward-Horizontal – Top of Post Concentrated Load	Pass
	Inward-Horizontal Uniform Load Test	Pass
	Inward-Horizontal – Mid-Span Concentrated Load	Pass
	Inward-Horizontal – Adjacent to Post Concentrated Load	Pass
	Inward-Horizontal – Top of Post Concentrated Load	Pass
	Size of Opening	N/A

Refer to Appendix B for photos of testing.

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SECTION 3**TEST LOADS**

The guard specimens were evaluated in accordance with the following:

ASTM E935-21, *Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings*

The required test loads were based on the Specified Loads per the following Building Code articles with the Safety Factors applied as indicated in this report:

2020 National Building Code of Canada (NBC)

- Section 4.1.5.14 *Loads on Guards and Handrails*
- Section 9.8.8.2 *Loads on Guards*

2012 Ontario Building Code (OBC)

- Section 4.1.5.14 *Loads on Guards*
- Section 9.8.8.2 *Loads on Guards*

2018 British Columbia Building Code (BCBC)

- Section 4.1.5.14 *Loads on Guards and Handrails*
- Section 9.8.8.2 *Loads on Guards*

2019 National Building Code – Alberta Edition (NBC-AE)

- Section 4.1.5.14 *Loads on Guards and Handrails*
- Section 9.8.8.2 *Loads on Guards*

SECTION 4**MATERIAL SOURCE**

The client submitted the guard systems to the Evaluation Center on November 14, 2023 (Coquitlam ID# VAN2311141104-001). The samples were received in good condition and were suitable for testing unless noted otherwise. The samples were not independently selected for testing.

SECTION 5**EQUIPMENT**

Calibration of test equipment was performed by Intertek B&C in accordance with ISO 17025 requirements.

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ASSET #	DESCRIPTION	MODEL	CAL DUE DATE
P60692	Artech 5k lb S-Type Load Cell	20210-5k	12/08/23
P60554	T&D Temperature and Humidity Indicator	TR-72Ui	10/01/24
P60494	Stanley Tape Measure	FatMax	10/19/24
P60623	Extech Stopwatch	365515	12/07/23
52650	Mitutoyo 8 in. Digital Caliper	CD-8	06/22/24
D7810	Micro Mule	Intertek-York	10/03/24
64919	Tyco Electronics Linear Transducer	PT1MA-20-UP-420E-M6	02/29/24

SECTION 6

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Jason Komorski	Intertek B&C
Chris Chang	Intertek B&C
Kal Kooner	Intertek B&C
Dan Lungu	Intertek B&C

The above observer(s) witnessed part of the test program.

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SECTION 7**TESTING PROCEDURE**

The evaluation was conducted in accordance with the testing procedures of ASTM E935-21, *Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings*. The test specimens were loaded at a rate to achieve the specified loads between 10 seconds and 5 minutes. The specified test loads were held for one minute before the load was released. For each test, deflection measurements were taken at the point of load application. Testing was conducted with reference to the specified load requirements of the following:

2020 NBC / 2012 OBC / 2018 BCBC / 2020 NBC-AE:**SECTION 4.1.5.14 LOADS ON GUARDS AND HANDRAILS**

- 1) The minimum specified horizontal load applied inward or outward at the minimum required height of every guard shall be 0.75 kN/m or a concentrated load of 1.0 kN applied at any point.
- 2) The minimum specified horizontal load applied inward at the minimum required height of every required guard shall be half that specified in Sentence (1).
- 3) Individual elements within the *guard*, including solid panels and pickets, shall be designed for a concentrated load of 0.5 kN applied over an area of 100 mm x 100 mm located at any point in the element or elements so as to produce the most critical effect.
- 4) The size of the opening between any two adjacent vertical elements within a *guard* shall not exceed 100 mm when each of these elements is subjected to a specified *live load* of 0.1 kN applied in opposite directions in the in-plane direction of the *guard* so as to produce the most critical effect.
- 5) The minimum specified load applied vertically at the top of every required *guard* shall be 1.5 kN/m.
- 6) None of the loads specified above need be considered to act simultaneously.

2020 NBC / 2012 OBC / 2018 BCBC / 2020 NBC-AE:**SECTION 9.8.8.2 LOADS ON GUARDS**

- 1) The minimum specified horizontal load applied inward or outward at the top of every required guard shall be 0.5 kN/m or a concentrated load of 1.0 kN applied at any point
- 2) Individual elements within the *guard*, including solid panels and pickets, shall be designed for a

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concentrated load of 0.5 kN applied over an area of 300 mm x 300 mm located at any point in the element or elements so as to engage 3 balusters when possible.

- 3) The minimum specified load applied vertically at the top of every required *guard* shall be 1.5 kN/m.
- 4) None of the loads specified above need be considered to act simultaneously.

Note 1: A safety factor of 1.67-2.24 was applied to the above loads, based on an assumed failure mode and tested material. The safety factor was calculated by dividing the live load factor of 1.5 by the material resistance factors below, as defined in the CAN/CSA S157, *Strength Design in Aluminum* standard.

- $\phi=0.90$ resistance factor for bending failure mode, resulting safety factor = 1.67
- $\phi=0.75$ resistance factor for ductile failure mode, resulting safety factor = 2.0
- $\phi=0.67$ resistance factor for brittle failure mode, resulting safety factor = 2.24

IN-FILL LOAD TEST

A test load was applied using a 100 mm x 100 mm square block on the center of an individual Privacy Board normal to the in-fill. After release of the load, the system was evaluated for failure, any evidence of disengagements of any component and visible cracks in any component.

UNIFORM LOAD TEST

Uniform test loads were applied vertically to the top of the Privacy Wall system and horizontally on an individual Privacy Board at 42 in. height. The test loads were applied using quarter point loads. After release of the load, the system was evaluated for failure, any evidence of disengagements of any component and visible cracks in any component.

For the fascia mounted Privacy Wall, the uniform load test was also conducted in the inward direction.

CONCENTRATED LOAD TEST

For the deck mounted Privacy Wall, concentrated test loads were applied on an individual Privacy Board at 42 in. height at the following locations:

- horizontally at the midspan of the Privacy Board,
- horizontally at the Privacy Board adjacent to the post connection to verify connection capacity, and
- horizontally on the post at 42 in. height.

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After completion of the above load tests, the concentrated load on the post at 42 in. height was loaded until failure.

For the fascia mounted Privacy Wall, testing was conducted in both the outward and inward direction.

SIZE OF OPENING

Size of opening was not evaluated as there were no openings between adjacent vertical elements.

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SECTION 8

TEST SPECIMEN DESCRIPTION

The samples were identified as the following:

TABLE 1. RAILING CONFIGURATION							
PART NAME	PART NUMBER	QTY	PART DIMENSIONS				REPORTED MATERIAL
			LENGTH	WIDTH	HEIGHT	NOMINAL THICKNESS	
5 FT. PRIVACY WALL – DECK MOUNT							
Post	N/A	2	2.53 in.	2.53 in.	71.3 in.	0.09 in.	Aluminum
Baseplate	D000063	2	4.00 in.	4.00 in.	0.25 in.	N/A	Aluminum
Infill – Privacy Board	N/A	12	5.38 in.	58.5 in.	0.63 in.	0.08 in.	Aluminum
5 FT. PRIVACY WALL – FASCIA MOUNT							
Post	N/A	2	2.53 in.	2.53 in.	79.0 in.	0.09 in.	Aluminum
Scenic Fascia Bracket	D000844	2	4.75 in.	4.50 in.	4.00 in.	0.31 in.	Aluminum
Infill – Privacy Board	N/A	12	5.38 in.	58.5 in.	0.63 in.	0.08 in.	Aluminum

Note 1: For detailed drawings of the test samples and components, refer to Appendix C.

Note 2: The supporting structure attachment was outside the scope of this evaluation, and is subject to evaluation and approval by the Engineer of Record and the Authority Having Jurisdiction (AHJ). The assemblies were attached to a rigid test support using steel plates with four (4) 3/8 in. Grade 5 bolts on each post.

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SECTION 9**TEST RESULTS**

A full set of test results is included in Appendix A.

SECTION 10**CONCLUSION**

Intertek Testing Services NA Ltd. (Intertek) has conducted testing for Cendek Railings Ltd. on the Privacy Wall products per ASTM E935-21, *Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings*. The scope of the testing as requested by Cendek Railings Ltd., was to assess the ability of the guard systems to resist the loads as prescribed in the following building code articles:

2020 National Building Code of Canada (NBC)

- Section 4.1.5.14 *Loads on Guards and Handrails*
- Section 9.8.8.2 *Loads on Guards*

2012 Ontario Building Code (OBC)

- Section 4.1.5.14 *Loads on Guards*
- Section 9.8.8.2 *Loads on Guards*

2018 British Columbia Building Code (BCBC)

- Section 4.1.5.14 *Loads on Guards and Handrails*
- Section 9.8.8.2 *Loads on Guards*

2019 National Building Code – Alberta Edition (NBC-AE)

- Section 4.1.5.14 *Loads on Guards and Handrails*
- Section 9.8.8.2 *Loads on Guards*

The Cendek Railings Ltd. Privacy Wall products identified and evaluated in this report have met the load requirements using the safety factors as defined in Section 7, Note 1 of this report. Overall compliance with the Building Codes must be evaluated and approved by the Engineer of Record and Authority Having Jurisdiction.

The conclusions of this test may not be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

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SECTION 11

APPENDIX A – TEST DATA (4 PAGES)

Company	Cendek	Technician(s)	Jason Komorski / Chris Chang
Project No.	G105626012	Reviewer	Baldeep Sandhu
Models	5 ft. o/c span	Start/End Date	November 22-28, 2023
Product Name	Privacy Walls	Sample ID	VAN2311141104-001
Standard	2020 NBC / 2012 OBC / 2018 BCBC / 2019 NBC-AE, Section 4.1.5.14		

Test Data Package

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5 ft Privacy Wall - Surface Mount	2
5 ft Privacy Wall - Fascia Mount	3

Test: **Loads on Guards - Section 4.1.5.14**
Date: 22-Nov-23
Client: Cendek
Product: **5 ft. Privacy Wall - Surface Mount**

Project: G105626012
Eng/Tech: Jason Komorski
Reviewer: Baldeep Sandhu
Location: Coquitlam, BC, Canada

Post Spacing: 5.00 ft 1.52 m
Height of Guard: 72.4 in 1838 mm
Opening in Guard: 0.38 in 10 mm (between panels)
2.13 in 54 mm (under bottom panel)

Method: ASTM E935-21, *Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings*
2020 National Building Code of Canada, Section 4.1.5.14 *Loads on Guards and Handrails*
2012 Ontario Building Code, Section 4.1.5.14 *Loads on Guards*
2018 British Columbia Building Code, Section 4.1.5.14 *Loads on Guards and Handrails*
2019 National Building Code - Alberta Edition, Section 4.1.5.14 *Loads on Guards and Handrails*

Safety Factor: 1.67 (based on a resistance factor $\phi = 0.9$ for aluminum)
2.24 (based on a resistance factor $\phi = 0.67$ for connection)

Equipment: Artech 5000 lbf Load Cell (Intertek ID# P60692, cal due December 8, 2023)
T&D TR-72Ui Temperature and Humidity Logger (Intertek ID# P60554, cal due October 1, 2024)
Stopwatch (Intertek ID# P60624, cal due December 7, 2023)
Stanley Tape Measure (Intertek ID# P60494, cal due October 19, 2024)
Mitutoyo Digital Caliper (Intertek ID# 52650, cal due June 22, 2024)
Micro Mule Measurement System (Intertek ID# D7810, cal due October 3, 2024)
Tyco Electronics Linear Transducer (Intertek ID# 64919, cal due February 29, 2024)

Time/Temp/RH: 9:55AM / 23.0°C / 50.0%

Direction	Test	Design Load (Inward/Outward) (lbf)	Factored Load	Calculated Moment (lbf-ft)	Equivalent Quarter-Point Load (lbf)	Required Proof Load (lbf)	Deflections (in.)	Pass/Fail
Outward	Individual Elements (over 4 in. x 4 in.)	112	187	-	-	187	2.539	Pass
	Vertical Uniform Load (per ft)	103	171	535	428	856	1.772	Pass
	Horizontal Uniform Load (per ft)	51	86	268	214	428	3.138	Pass
	Midspan Horizontal Concentrated Load	225	375	-	-	375	3.634	Pass
	Adjacent to Post Concentrated Load	225	503	-	-	503	2.260	Pass
	Top of Post Horizontal Concentrated Load	225	375	-	-	375	3.154	Pass
	Top of Post Horizontal Concentrated Load Ultimate Load	615.0 lb ultimate load						
In-plane	Size of Opening	22.5	-	-	-	22.5		N/A

Direction	Test	Design Load (Inward/Outward) (kN)	Factored Load	Calculated Moment (kNm)	Equivalent Quarter-Point Load (kN)	Required Proof Load (kN)	Deflections (mm)	Pass/Fail
Outward	Individual Elements (over 100 mm in. x 100 mm)	0.5	0.83	-	-	0.83	64.5	Pass
	Vertical Uniform Load (per m)	1.5	2.50	0.73	1.90	3.81	45.0	Pass
	Horizontal Uniform Load (per m)	0.75	1.25	0.36	0.95	1.90	79.7	Pass
	Midspan Horizontal Concentrated Load	1	1.67	-	-	1.67	92.3	Pass
	Adjacent to Post Concentrated Load	1	2.24	-	-	2.24	57.4	Pass
	Top of Post Horizontal Concentrated Load	1	1.67	-	-	1.67	80.1	Pass
	Top of Post Horizontal Concentrated Load Ultimate Load	2.7 kN ultimate load						
In-plane	Size of Opening	0.1	-	-	-	0.10	0.0	N/A

ULTIMATE LOAD: 615.0 lb (2.7 kN) - bolts from base plate into post broke

Test: Loads on Guards - Section 4.1.5.14 (Outward)

Date: 28-Nov-23

Client: Cendek

Product: **5 ft. Privacy Wall - Fascia Mount**

Post Spacing: 5.00 ft 1.52 m

Height of Guard: 79.4 in 2016 mm

Opening in Guard: 0.38 in 10 mm (between panels)
2.13 in 54 mm (under bottom panel)

Method: ASTM E935-21, *Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings*

2020 National Building Code of Canada, Section 4.1.5.14 *Loads on Guards and Handrails*

2012 Ontario Building Code, Section 4.1.5.14 *Loads on Guards*

2018 British Columbia Building Code, Section 4.1.5.14 *Loads on Guards and Handrails*

2019 National Building Code - Alberta Edition, Section 4.1.5.14 *Loads on Guards and Handrails*

Safety Factor: 1.67 (based on a resistance factor $\phi = 0.9$ for aluminum)

2.24 (based on a resistance factor $\phi = 0.67$ for connection)

Equipment: Artech 5000 lbf Load Cell (Intertek ID# P60692, cal due December 8, 2023)

T&D TR-72Ui Temperature and Humidity Logger (Intertek ID# P60554, cal due October 1, 2024)

Stopwatch (Intertek ID# P60624, cal due December 7, 2023)

Stanley Tape Measure (Intertek ID# P60494, cal due October 19, 2024)

Mitutoyo Digital Caliper (Intertek ID# 52650, cal due June 22, 2024)

Micro Mule Measurement System (Intertek ID# D7810, cal due October 3, 2024)

Tyco Electronics Linear Transducer (Intertek ID# 64919, cal due February 29, 2024)

Time/Temp/RH: 2:15PM / 22.3°C / 49.0%

Project: G105626012

Eng/Tech: Jason Komorski

Reviewer: Baldeep Sandhu

Location: Coquitlam, BC, Canada

Direction	Test	Design Load (Inward/Outward) (lbf)	Factored Load	Calculated Moment (lbf-ft)	Equivalent Quarter-Point Load (lbf)	Required Proof Load (lbf)	Deflections (in.)	Pass/Fail
Outward	Individual Elements (over 4 in. x 4 in.)	112	187	-	-	187	2.130	Pass
	Horizontal Uniform Load (per ft)	51	86	268	214	428	2.724	Pass
	Midspan Horizontal Concentrated Load	225	375	-	-	375	3.906	Pass
	Adjacent to Post Concentrated Load	225	503	-	-	503	3.925	Pass
	Top of Post Horizontal Concentrated Load	225	375	-	-	375	2.335	Pass
	Top of Post Horizontal Concentrated Load Ultimate Load	835.5 lb ultimate load						

Direction	Test	Design Load (Inward/Outward) (kN)	Factored Load	Calculated Moment (kNm)	Equivalent Quarter-Point Load (kN)	Required Proof Load (kN)	Deflections (mm)	Pass/Fail
Outward	Individual Elements (over 100 mm in. x 100 mm)	0.5	0.83	-	-	0.83	54.1	Pass
	Horizontal Uniform Load (per m)	0.75	1.25	0.36	0.95	1.90	69.2	Pass
	Midspan Horizontal Concentrated Load	1	1.67	-	-	1.67	99.2	Pass
	Adjacent to Post Concentrated Load	1	2.24	-	-	2.24	99.7	Pass
	Top of Post Horizontal Concentrated Load	1	1.67	-	-	1.67	59.3	Pass
	Top of Post Horizontal Concentrated Load Ultimate Load	3.7 kN ultimate load						

ULTIMATE LOAD: 835.5 lbs (3.7 kN) - post buckled above fascia mount bracket

Test: Loads on Guards - Section 4.1.5.14 (Inward)

Date: 27-Nov-23

Client: Cendek

Product: 5 ft. Privacy Wall - Fascia Mount

Post Spacing: 5.00 ft 1.52 m

Height of Guard: 79.4 in 2016 mm

Opening in Guard: 0.38 in 10 mm (between panels)

2.13 in 54 mm (under bottom panel)

Method: ASTM E935-21, *Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings*

2020 National Building Code of Canada, Section 4.1.5.14 *Loads on Guards and Handrails*

2012 Ontario Building Code, Section 4.1.5.14 *Loads on Guards*

2018 British Columbia Building Code, Section 4.1.5.14 *Loads on Guards and Handrails*

2019 National Building Code - Alberta Edition, Section 4.1.5.14 *Loads on Guards and Handrails*

Safety Factor: 1.67 (based on a resistance factor $\phi = 0.9$ for aluminum)

2.24 (based on a resistance factor $\phi = 0.67$ for connection)

Equipment: Artech 5000 lbf Load Cell (Intertek ID# P60692, cal due December 8, 2023)

T&D TR-72Ui Temperature and Humidity Logger (Intertek ID# P60554, cal due October 1, 2024)

Stopwatch (Intertek ID# P60624, cal due December 7, 2023)

Stanley Tape Measure (Intertek ID# P60494, cal due October 19, 2024)

Mitutoyo Digital Caliper (Intertek ID# 52650, cal due June 22, 2024)

Micro Mule Measurement System (Intertek ID# D7810, cal due October 3, 2024)

Tyco Electronics Linear Transducer (Intertek ID# 64919, cal due February 29, 2024)

Time/Temp/RH: 2:15PM / 22.3°C / 49.0%

Project: G105626012

Eng/Tech: Jason Komorski

Reviewer: Baldeep Sandhu

Location: Coquitlam, BC, Canada

Direction	Test	Design Load (Inward/Outward) (lbf)	Factored Load	Calculated Moment (lbf-ft)	Equivalent Quarter-Point Load (lbf)	Required Proof Load (lbf)	Deflections (in.)	Pass/Fail
Inward	Horizontal Uniform Load (per ft)	26	43	135	108	217	1.173	Pass
	Vertical Uniform Load (per ft)	103	171	535	428	856	0.799	Pass
	Midspan Horizontal Concentrated Load	112	187	-	-	187	1.799	Pass
	Adjacent to Post Concentrated Load	112	251	-	-	251	1.815	Pass
	Top of Post Horizontal Concentrated Load	112	187	-	-	187	1.154	Pass

Direction	Test	Design Load (Inward/Outward) (kN)	Factored Load	Calculated Moment (kNm)	Equivalent Quarter-Point Load (kN)	Required Proof Load (kN)	Deflections (mm)	Pass/Fail
Inward	Horizontal Uniform Load (per m)	0.375	0.62	0.18	0.48	0.95	29.8	Pass
	Vertical Uniform Load (per m)	1.5	2.50	0.73	1.90	3.81	20.3	Pass
	Midspan Horizontal Concentrated Load	0.5	0.83	-	-	0.83	45.7	Pass
	Adjacent to Post Concentrated Load	0.5	1.12	-	-	1.12	46.1	Pass
	Top of Post Horizontal Concentrated Load	0.5	0.83	-	-	0.83	29.3	Pass

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APPENDIX B – PHOTOS (4 PAGES)

TEST REPORT FOR CENDEK RAILINGS LTD.

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Date: 12/15/23

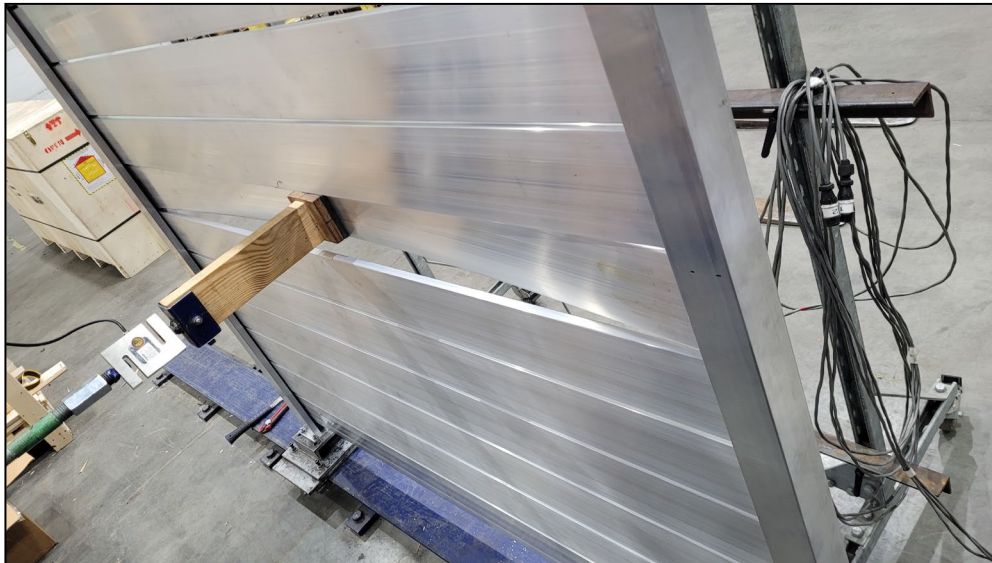


Figure 1. Privacy Wall (Deck Mount) – In-fill Load Test



Figure 2. Privacy Wall (Deck Mount) – Horizontal Uniform Load

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Date: 12/15/23

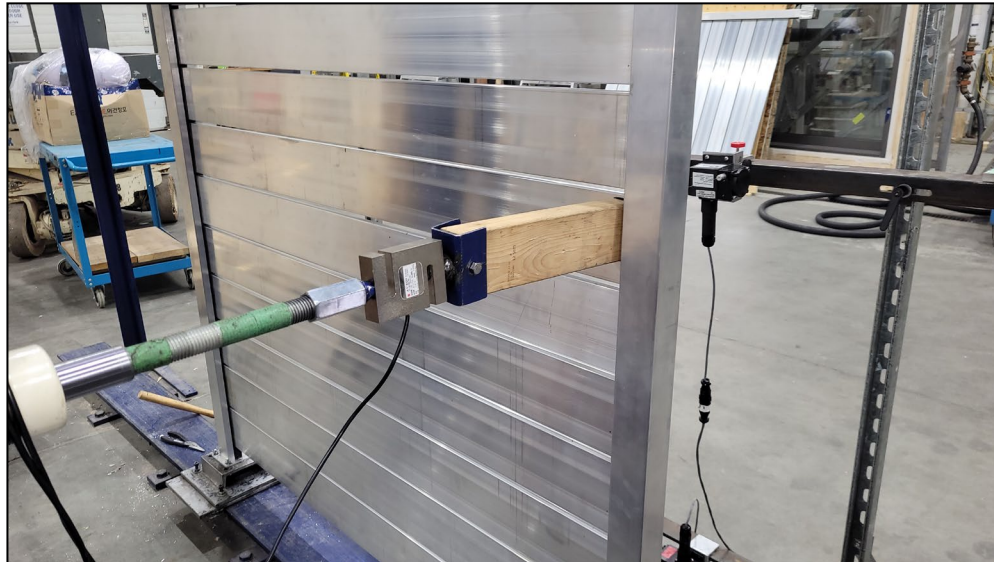


Figure 3. Privacy Wall (Deck Mount) – Horizontal – Adjacent to Post Concentrated Load

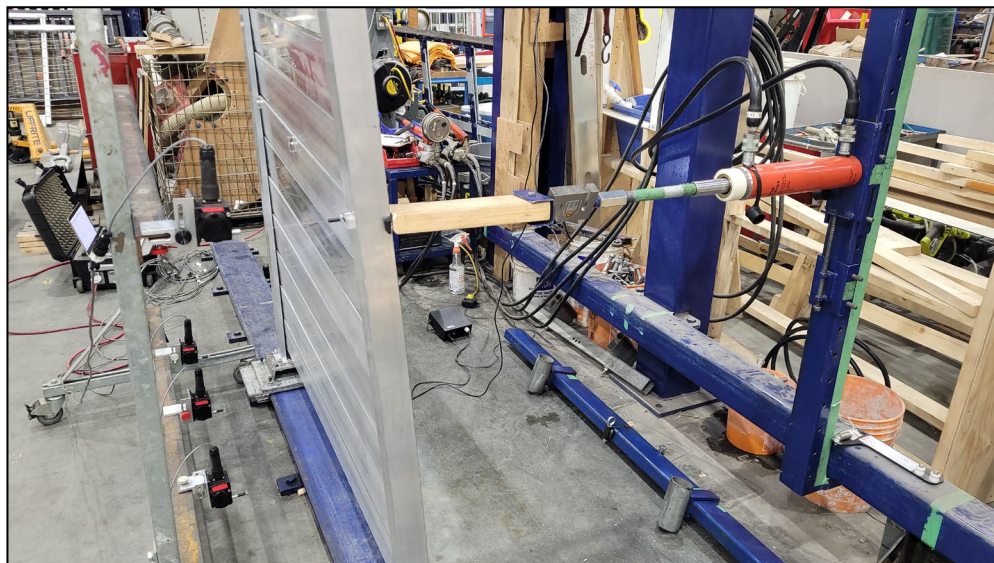


Figure 4. Privacy Wall (Deck Mount) – Horizontal – Post Concentrated Load

TEST REPORT FOR CENDEK RAILINGS LTD.

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Figure 5. Privacy Wall (Fascia Mount) – In-fill Load Test



Figure 6. Privacy Wall (Fascia Mount) – Horizontal – Mid-Span of Privacy Board Concentrated Load

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Figure 7. Privacy Wall (Fascia Mount) – Horizontal – Post Concentrated Load



Figure 8. Privacy Wall (Fascia Mount) – Vertical Uniform Load

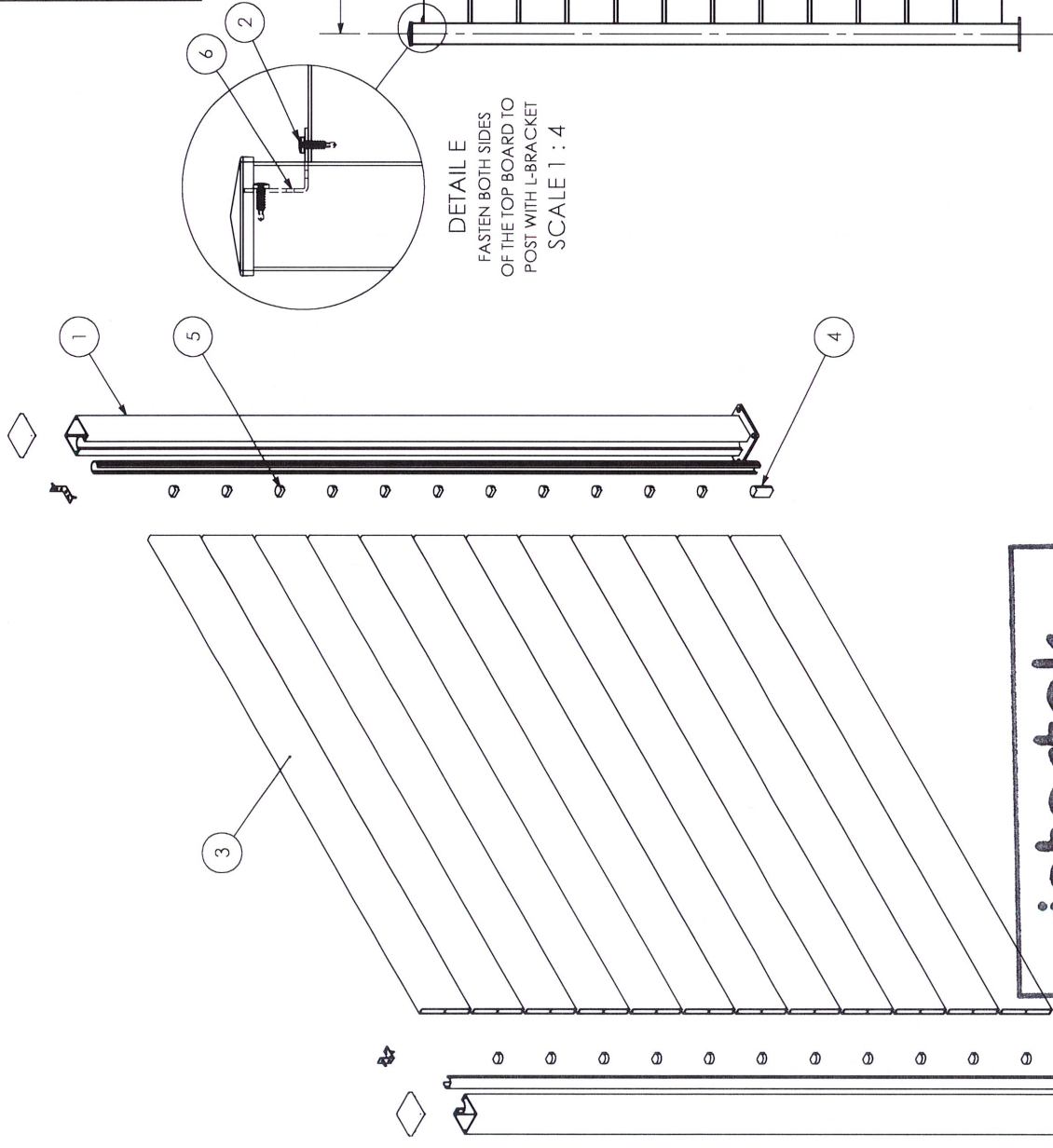
TEST REPORT FOR CENDEK RAILINGS LTD.

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APPENDIX C – DRAWINGS (6 PAGES)

ITEM NO.	Eng No.	Part No.	DESCRIPTION	QTY.
1	2320AA		72in Privacy Surface End Post	2
2	0096PA	D000332	Screw #10x3/4" PH Robertson TEK Zinc	4
3	2677PB	D020332	5/8" X 5-3/8" X 58-5/8" Privacy Board	12
4	0495PA	D000224	Rubber Scenic Post Glass Setting Block 1-7/8"	2
5	0495PB	D020049	Rubber Scenic post glass setting block 3/8"	22
6	2318P	D020048	L-Bracket 1-1/2 x 1-1/2 x 1/16 Black	2



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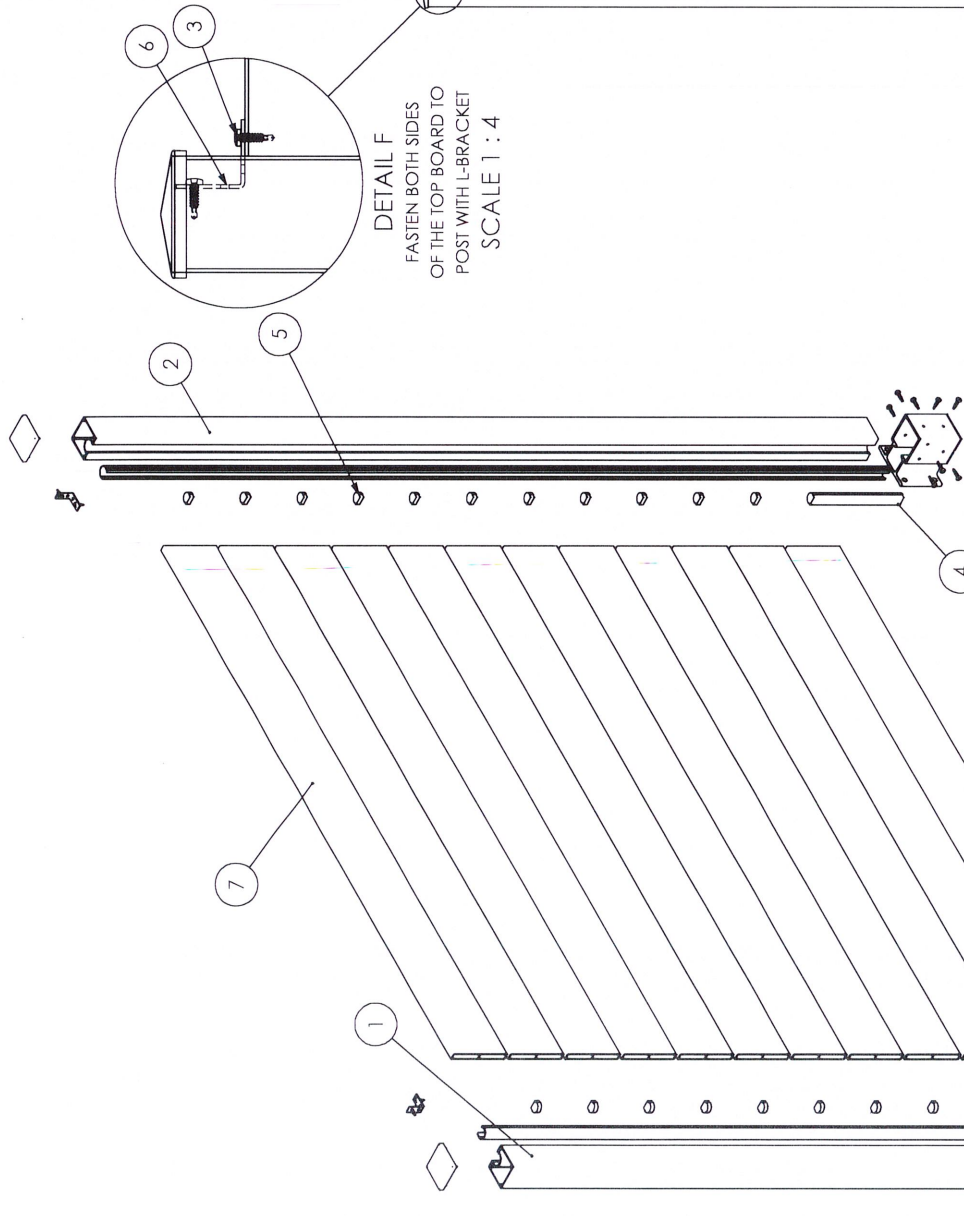
DRAWN BY	Admin
CREATED	12/15/2023
MATERIAL	
DIE NO.	
ALL DIMENSION IN INCHES/mm	

DESCRIPTION
5ft Privacy Wall - Surface Mount

REV.	DESCRIPTION	DATE	INITIALS

Part No. NA	Eng No. 2338AB
Weight	95.69 Lbs
SHEET 1 OF 1	Rev -

ITEM NO.	Eng No.	Part No.	DESCRIPTION	QTY.
1	2320AD		79in Privacy Fascia End Post-Left	1
2	2320AD		79in Privacy Fascia End Post - Right	1
3	0096PA	D000332	Screw # 10x3/4" PH Robertson TEK Zinc	4
4	0495P	D013217	Rubber Scenic Post Glass Setting Block 9-1/8"	2
5	0495PB	D020049	Rubber Scenic post glass setting block 3/8"	22
6	2318P	D020048	L-Bracket 1-1/2 x 1-1/2 x 1/16 Black	2
7	2677PB	D020332	5/8" X 5-3/8" X 58-5/8" Privacy Board	12



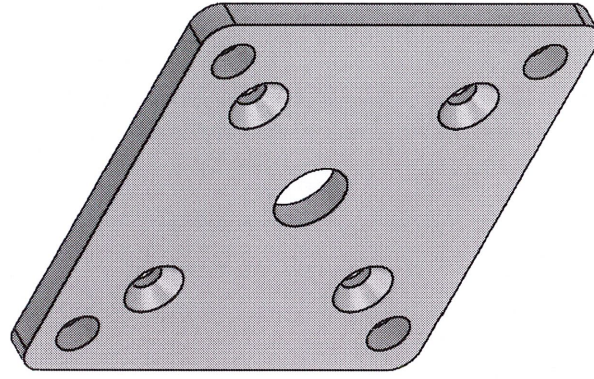
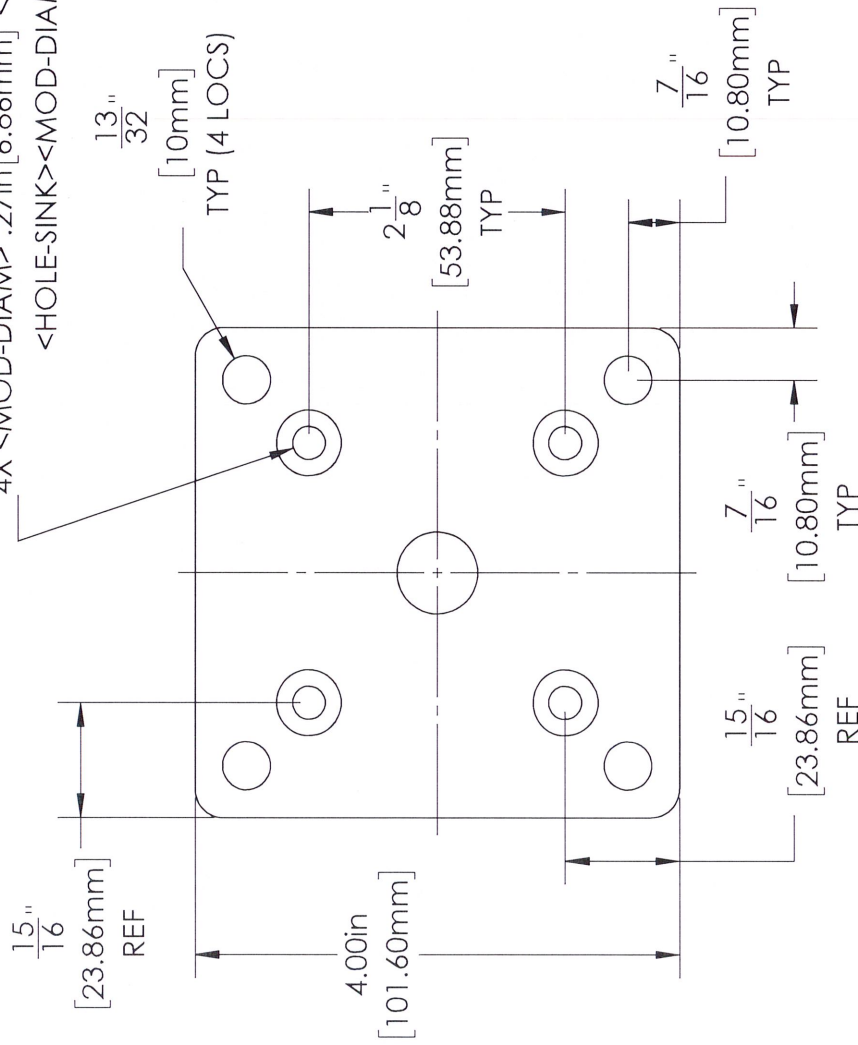
Test sample complies with these details.
Deviations are noted.

Report #: 1056260.2600-001A

Date: 12/19/23 Tech: C.C.

CenDek Railings Ltd.		DESCRIPTION 5ft Privacy Wall - Fascia Mount		Part No. NA	Eng No. 2341AB
		ALL DIMENSION IN INCHES/mm		Weight 84.50 Lbs	SHEET 1 OF 1
REV.	DESCRIPTION	DATE	INITIALS	Rev -	

4X <MOD-DIAM> .27in [6.86mm] <HOLE-DEPTH> 42.50in [1079.50mm]
 <HOLE-SINK><MOD-DIAM> .54in [13.65mm] X 82°



intertek

Test sample complies with these details.
 Deviations are noted.

Report #: 105626012E02-001A

Date: 12/19/23 Tech: C.C.

CenDek
 Railings Ltd.

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DRAWN BY Admin

CREATED 9/6/2017

MATERIAL 6005A - T6

DIE NO. DYG10072635

ALL DIMENSION IN INCHES/mm

DESCRIPTION

Baseplate 4"x 4" 2-1/2" Post

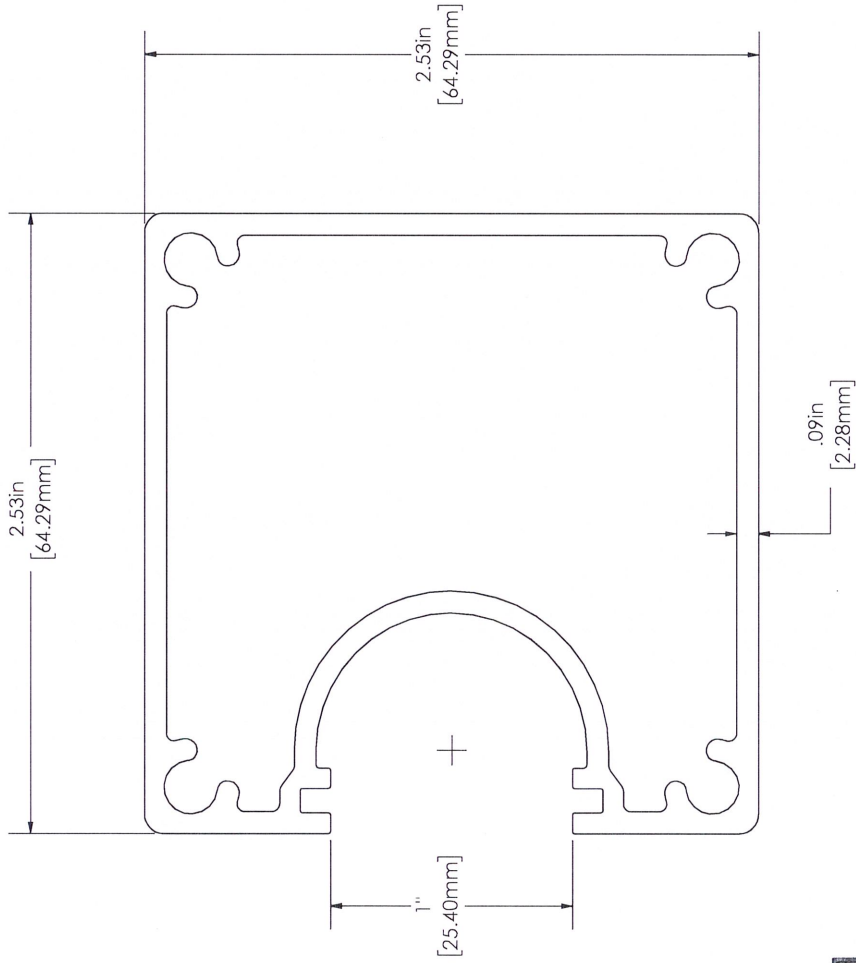
Part No. D000063

Weight 0.36 lbs

Eng No. 0054PB

SHEET 4 OF 4

Rev -



intertek

Test sample complies with these details.
Deviations are noted.

Report #: 165626012 COQ -001A

Date: 12/12/23 Tech: A.C.

REVISIONS

REV.	DESCRIPTION	DATE	INITIAL
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CenDek
Railings Ltd.

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DRAWN BY Admin
CREATED 9/19/2017
MATERIAL 6063-T5
DIE NO.

ALL DIMENSION IN INCHES/MM

DESCRIPTION

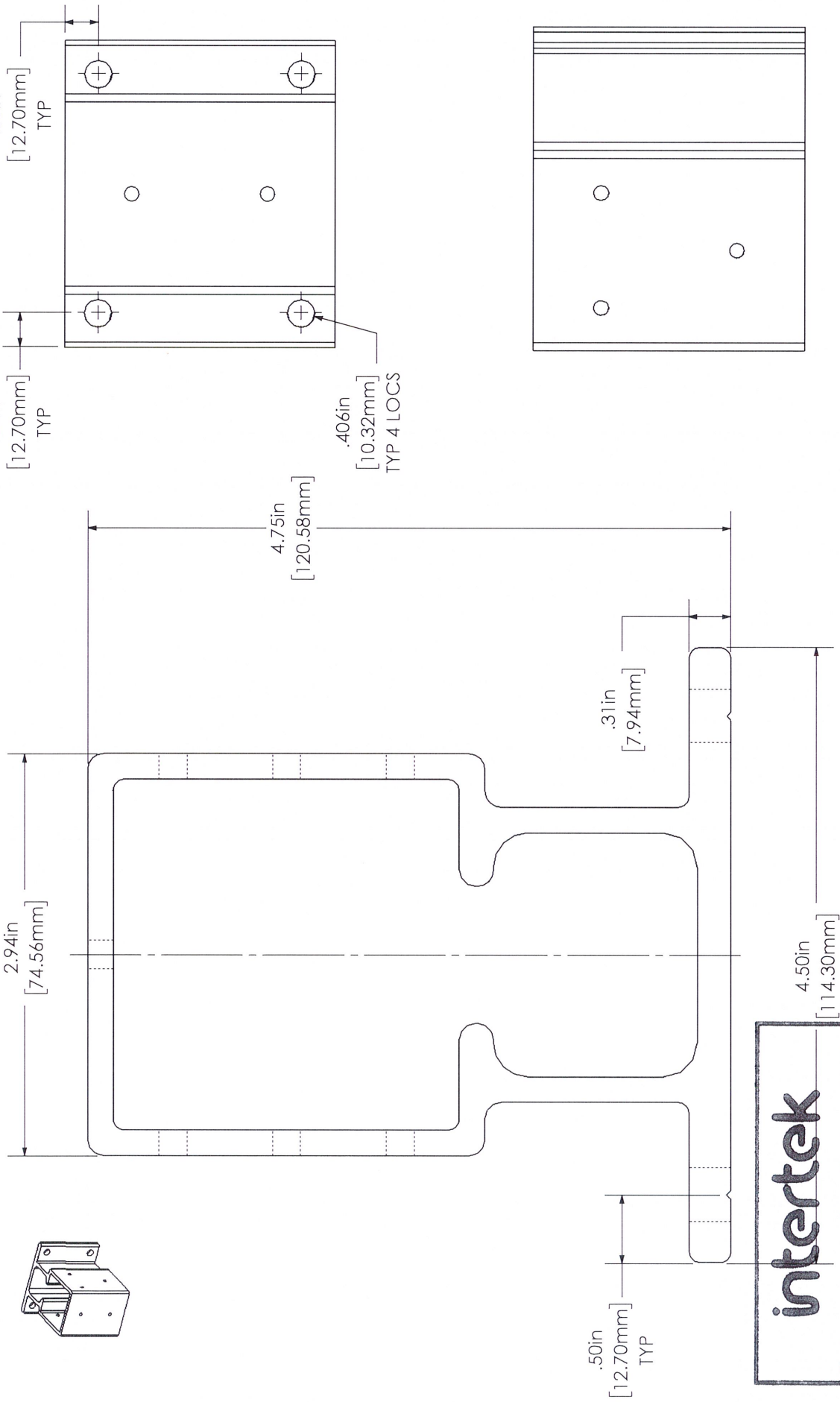
2-1/2" Scenic End Post Drawing

Part No. NA

Weight 1.29 Lbs

Eng No. 0069PJ

Rev -

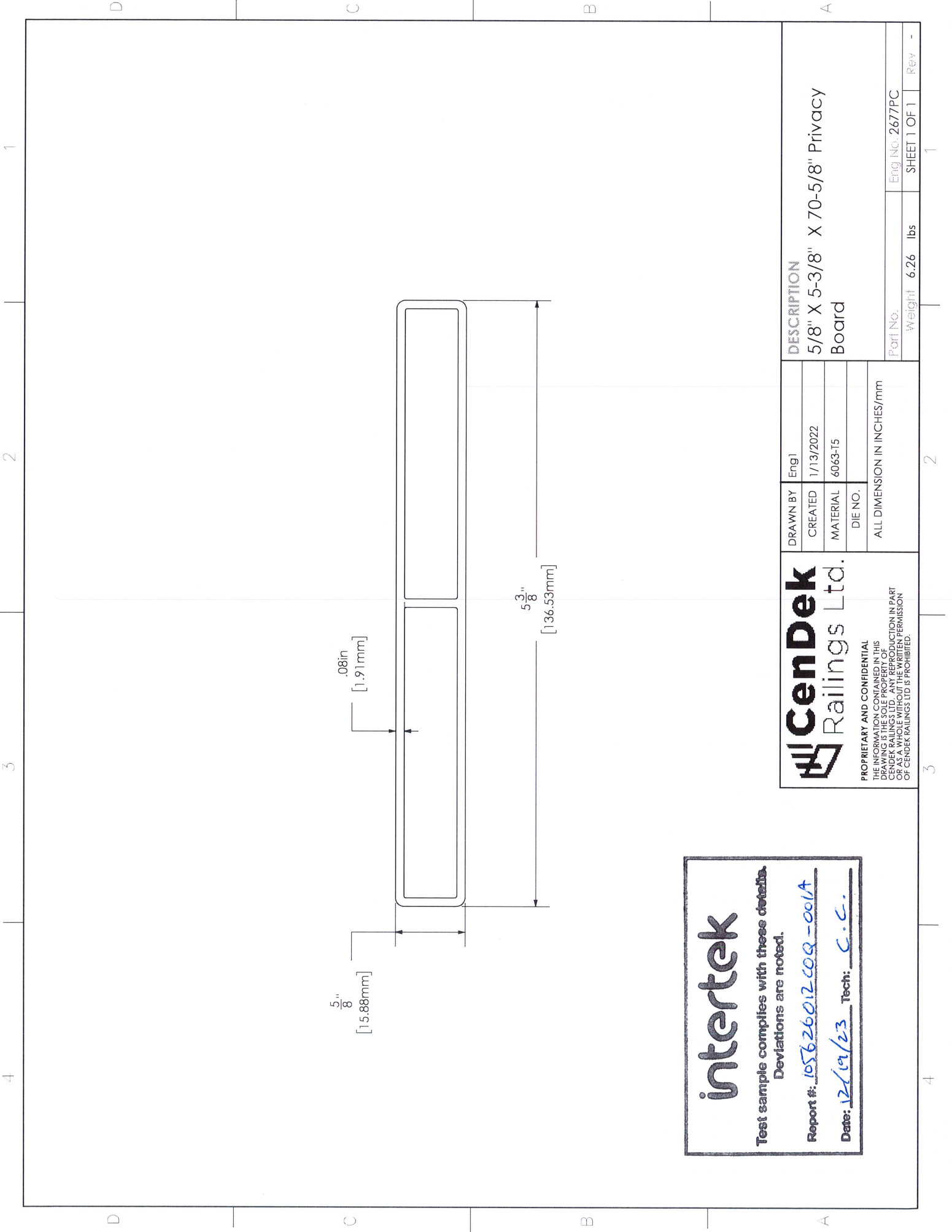



Test sample complies with these details.
Deviations are noted.

Report #: 1056260200-001A

Date: 12/6/23 Tech: C.C.

CenDek Railings Ltd. <small>PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF CENDEK RAILINGS LTD. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CENDEK RAILINGS LTD IS PROHIBITED.</small>		DRAWN BY: Admin CREATED: 10/4/2018 MATERIAL: 6063-T5 DIE NO.: 696013	DESCRIPTION Scenic Fascia Bracket Line/End/Stair
ALL DIMENSION IN INCHES/mm		Part No. D000844 Weight 1.47 Lbs	Eng No. Rev -
REV.	DESCRIPTION	DATE	INITIALS
REVISIONS			

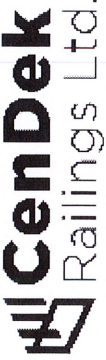




Test sample complies with these details.
Deviations are noted.

Report #: 10562601200Q-001A

Date: 12/19/23 Tech: C.C.

 <p>PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CENDEK RAILINGS LTD. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CENDEK RAILINGS LTD IS PROHIBITED.</p>		DRAWN BY Engl		DESCRIPTION 5/8" X 5-3/8" X 70-5/8" Privacy Board	
		CREATED 1/13/2022			
		MATERIAL 6063-T5			
		DIE NO.			
		ALL DIMENSION IN INCHES/mm			
				Part No.	Eng No. 2677PC
				Weight 6.26 lbs	SHEET 1 OF 1 Rev -

TEST REPORT FOR CENDEK RAILINGS LTD.

Report No.: 105626012COQ-001A

Date: 12/15/23

SECTION 12

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	12/15/23	N/A	Original Report Issue