CONFIDENTIAL DATA

Royal Wolf Trading
Construction Hoarding
Design Certification

20-ft Gantry Hoarding

rwt1507-crt-str020-001

Issue	Date	Description	Author	Reviewed	Approved
0	13/12/2015	Client Review	AWR	SMK	AWR
1	07/07/16	Date revision on Certificate	AWR	JDG	

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1. Design Approval Certificate

Approval Number:	rwt1507-crt-str020-001
File No:	rwt1507-crt-str020-001-0.docx

Equipment Name:	20-ft Gantry Hoarding
Equipment No:	-
Reference Drawings:	Table 3-2 Reference Documentation
Reference Documents:	Table 3-2 Reference Documentation

We, being the authorised representatives of Royal Wolf Trading, hereby certify that the 20-ft Gantry Hoarding, manufactured in accordance with the design drawings and standards, will remain structurally sound when used in accordance with the data nominated within Section 2 - Design Data.

Signature	Name	Position	Date
	Andrew Reid of HAALD Engineering Pty Ltd	Principal Mechanical Engineer BEng (Mech), RPEQ 7387	03/12/15
Design Authority:	Royal Wolf Trading		

2. Design Data

Table 3-1 – Design parameters

Item	Parameter		Value	Comments
1.	Design life		<5yrs	
2.	Materials of construction		Appendix B	
3.	Wind Region		B	Stack two high (gantry +2)
4.			C	Restricted stacking to one high (gantry + 1)
5.	Structure importance level		2	Normal structures and structures not falling into other levels
6.	Annual probability of exceedance for wind		1/100	AS-1170.0 Table F2. Construction equipment (e.g. props, scaffolding, braces and similar)
7.	Wind directional multiplier		0.95	AS/NZS1170.2 - C3.3.2(a)
8.	Wind Terrain Category		3	AS/NZS1170.2 – C4.2.1
9.	Terrain / height multiplier		0.83	AS/NZS1170.2 Table 4.1A
10.	Shielding multiplier		0.9	Assume multi-storey construction projects. If installed in open areas assume restricted to one building high until shieling is provided by the construction
11.	Topographic multiplier		1	
12.	Dynamic response factor C_{dyn}		1	
13.	Building Length		6.1-m	
14.	Building Width		2.438-m	
15.	Height	Gantry	2.9-m	
16.		Platform	0.25-m	
17.		Building	2.9-m	
18.	**Imposed Loads**			
18.1.	Floor Loads		2.0-kPa	Office use
18.2.	Walkways		2.5-kPa	
18.3.	Storage		5-kPa	
18.4.	Roof		10-kPa	Ultimate load case with permanent deformation allowable
18.5.	Tare mass - Hoarding		2360-kg	
18.6.	Mass 20' platform (ballasted)		6000-kg	
18.7.	Tare 20' building		2500-kg	For stability
18.8.			3200-kg	For strength
18.9.	Maximum Dead Load		260-kN	Total
18.10.			80-kN	Per corner post in a static environment
18.11.	Maximum Live Load		60-kN	Per corner post in a static environment

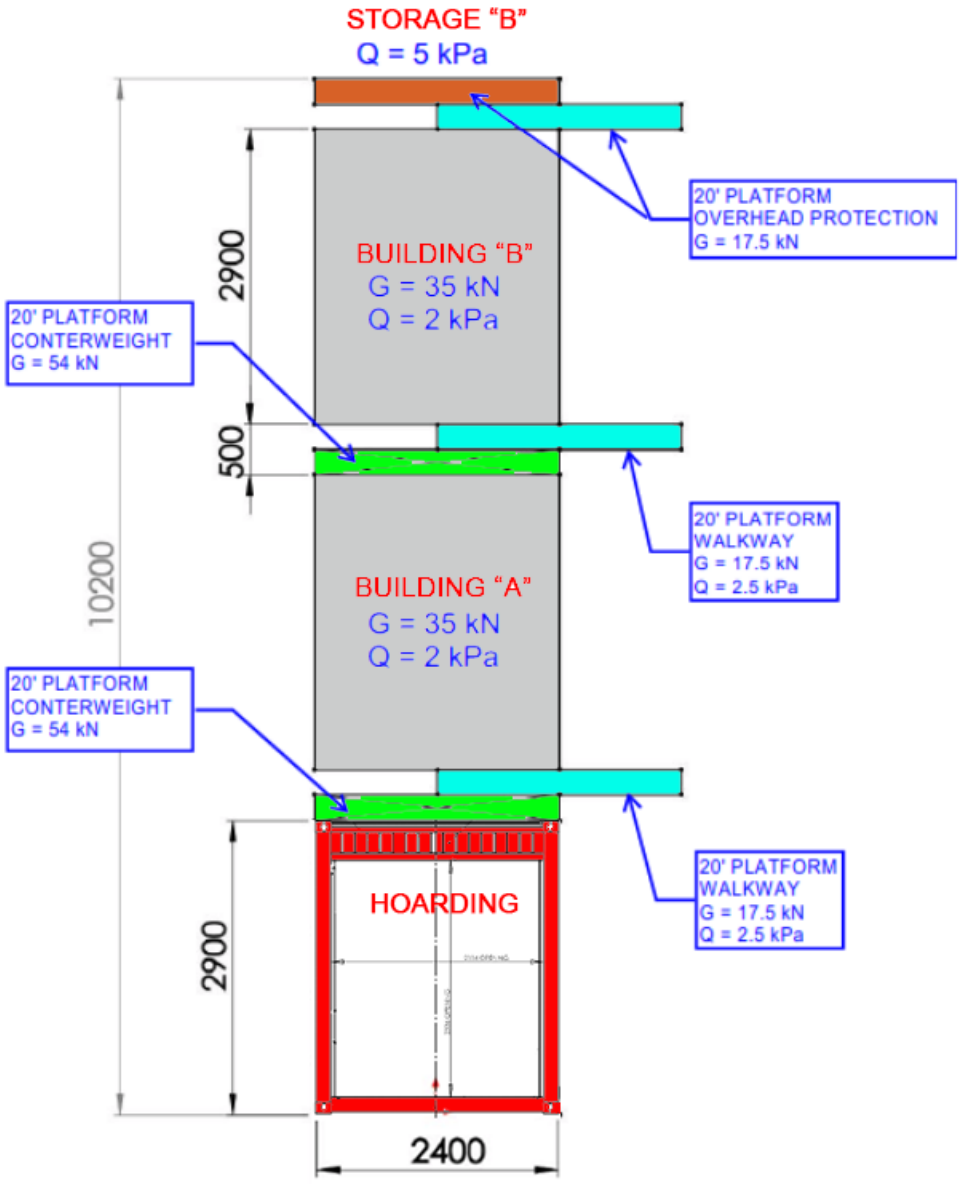

Figure 3-1 Hoarding Typical Allowable Loading Region B Wind Loading

Table 3-2 Reference Documentation

Item	Document Number	Description	Rev	Origin
1)	rwt1507-dcr-gnr020-001	Design Criteria	0	Haald Engineering
2)	rwt1507rpr-str020-001	Design Review & Certification Report	0	Haald Engineering
3)	rwt1507-drw-rfrrwt -001	20ft Walkway – General Arrangement	B	RWT/CIMC
4)	rwt1507-spc-rfrrwt-001	Technical Specification 20'HC WALKWAY CONTAINER	A	RWT/CIMC
5)	rwt1507-clc-mch020-001	Loading calculations – 20ft Hoarding	A	Haald
6)	rwt1507-clc-str020-001	FE Analysis – 20ft Hoarding	h	Haald Engineering