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Results

To: Organisation:	Brad Smith Kronospan Trading SRL	From: Subject:	Doug Gaunt P21:2010 9mm Kronspan OSB 10mm GIB standard 400 Wall with Brackets								
Location:	Northcote	Date:	28 th February 2020								
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Brad

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Please find below the P21 bracing results for your three 400mm x 2.40m 9mm Kronspan OSB, 10mm GIB standard walls tested with GIB Handibracs.

- 1. BU wind =40 (100 BU/m) as limited by the serviceability load capacity.
- 2. BU Earthquake = 48 (120 BU/m) as limited by the ultimate load capacity.

Figures 1, 2 & 3 show the load deflection plots, Figure 4 shows the P21:2010 calculations.

Wall Construction

- 9mm Kronspan OSB one side •
- 10mm GIB standard other side
- 90x45 H1.2 SG8 framing, studs at 400mm centres, no nogs
- OSB fixing 50x2.87mm angular grove Paslode gun nails at 150mm centres to plates and end studs
- GIB fixed with Gibgrabber 32mm x 6g screws to Winstones pattern 50,50,50,75,75,150mm...
- **GIB** Handibracs each end
- M12 hold down bolts to Handibracs and bottom plate
- P21 supplementary restraints used.

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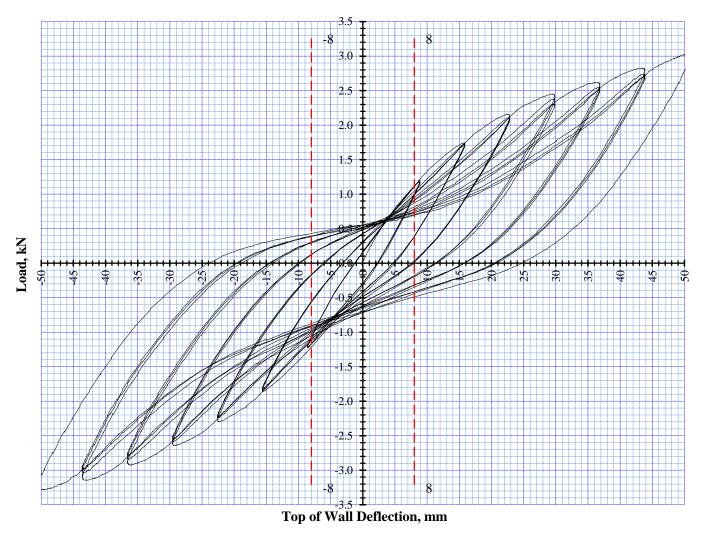


Figure 1: Wall 281754

Observations

- No obvious signs of failure to framing.
- No obvious signs of failure to Handibracs.
- No obvious signs of failure to OSB
- No obvious signs of failure to GIB

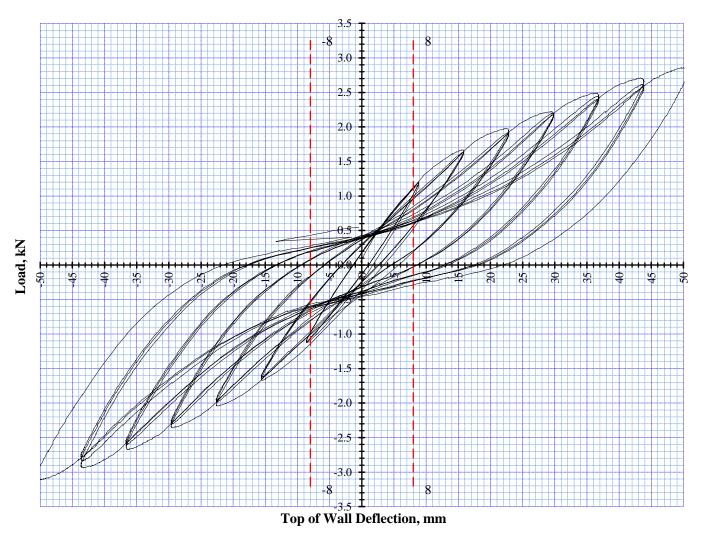


Figure 2: Wall 281755

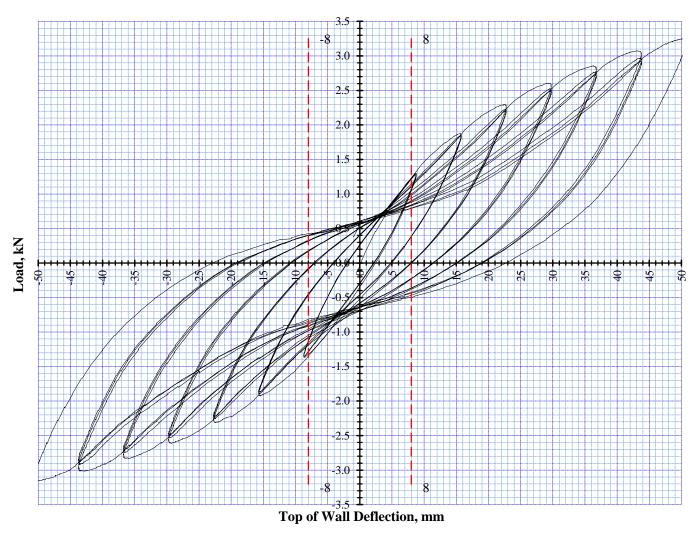


Figure 3: Wall 281756

400mm, 9mm Kro	onspa	n OSB one s	ide. 10mm G	IB standard	other side			
90x45 H1.2 LVL8 fi								
OSB fixing - 50x2.		-		-	150mm	Summary		
centres to plates a						Earthquake	120 (U)	BI I/m
32mmx 6g GIBgra					150mm	Wind		BU/m
GIB Handibracs ea							100 (0)	D 0/III
P21 supplementar						in plate		
Date of test:-	yres	26-Feb-20	Ship No.	2072		Tested by	Jamie Ag	0014
Date of calc's:-		26-Feb-20 26-Feb-20	•	TE19-028		Analysed by		
Calculated to BRANZ	7 02 1				Scion Privato	Bag 3020 Rote		
Calculated to DRANZ	<u> </u>	Serviceability		Ultimate Cyc		bay 3020 Noil	nua.	
		Cycle to H/300 c		Cycle to Dis			Wall dime	oncione
		8.0	Xmm		Jiacement		L(mm)	H(mm
Lab Number		Loads	Residual	y=(mm) Maximum			400	2400
Lab Number	Direction							
	irec	(P ₈)	Defln, C	Load	def @ P		d at P/2	4th,F
		kN	mm	P(kN)	y (mm)	P/2 (kN)	d mm	kN
004754	<u> </u>	4.42	0.00	0.00		4.04	07	0.40
281754	+	1.13	2.30	2.62	36.0	1.31	9.7	2.46
004755	-	1.17	1.30	2.92	36.0	4.04		2.76
281755	+	1.13	1.20	2.48	36.0	1.24	9.4	2.35
	-	1.09	1.40	2.67	36.0			2.53
281756	+	1.24	2.20	2.85	36.0	1.43	9.5	2.69
	-	1.33	2.00	2.83	36.0			2.65
		(P ₈)	(C)	(P)	(y)	P/2 (kN)	(d)	(Ry)
Averages		1.18	1.73	2.73	36.00	1.33	9.53	2.57
Coefficient of Variat	ion 9/	-	25.73	5.57	0.00	5.76	1.31	5.47
y = average failure c					0.00	0.10	1.01	0.17
d= average first cyc					cle wall reach	es the load)		
R = Residual load, I								
Displacement Reco					System	ns factor K2 =	12	
					Cyclon	u = y/d		
Average Structural I						-		
						K4 –	0 94	
Ductility Modificatio	on fact	tor		DI O - Selec	ted deflection	K4 =		202
Ductility Modificatio	on fact	tor		DLQ = Selec	ted deflection	K4 = limit for earthe		es
Ductility Modificatio DLW = Selected de	on fact eflectio	tor on limit for win	d forces			limit for earth		ces
Ductility Modificatio DLW = Selected de P21:2010 BR Calc	on fact eflectio	tor on limit for win K1	d forces	EQ service	Wind Ultimate	limit for earthout		es
Ductility Modificatio DLW = Selected de P21:2010 BR Calc Lab Number	on fact eflectio	tor on limit for win K1 _(= 1.4 - C/X)	d forces EQ ultimate BU's	EQ service BU's	Wind Ultimate BU's	limit for earth Wind Service BU's		ces
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Figure 4: P21:2010 calculations for 400mm x 2.40m, OSB+ GIB walls with brackets

Please feel free to contact me to discuss this information.

Cant

Doug Gaunt