



	Client: Ben Stout Real Es	tate Da	ate: 9/18/2020	Page 3 of 7
	Project:	In	put by: David Landry	
IsDesign	Address:	Jo	bb Name: Lot 54 Sierra Villas	
		Pr	roject #: J0920-4173	
BM1 Kerto-S	LVL 1.750" X 24.000"	3-Ply - PASSE	D Level: Level	
• • • •		• • • • •		<u> </u>
				$\frac{1}{\Sigma}$ 2'
		• • • • •	<u> </u>	<u></u> Ш
1 SPF End Grain			2 SPF End C	Grain //
<u>/</u>		24'7"		
,		217		
1		24'7"		1
Multi-Ply Analysis				
Fasten all nlies using 4	rows of 10d Box nails (128x3") at 12"	o.c. Nail from both sides	Maximum end distance not to e	exceed
6"		o.c Ivan norr both sides		xcccu
Capacity	94.1 %			
Load	308.0 PLF			
/ield Limit per Foot	327.4 PLF			
/ield Limit per Fastener	81.9 lb.			
/ield Mode				
Lage Distance	1 1/2" 3"			
_oad Combination	D+L			
Duration Factor	1.00			
Notes	chemicals	6. For flat roofs provide proper drainage to	prevent Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639
Calculated Structured Designs is responsible	le only of the Handling & Installation	ponding	Metsä Wood	Fayetteville, NC
suuctural adequacy of this component ba design criteria and loadings shown.	It is the 2. Refer to manufacturer's product information		301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851	28314 910-864-TRUS
ensure the component suitability of the application, and to verify the dimensions and	he intended fastening details, beam strength values, and code loads		(800) 622-5850	5.5 JUT-1100
Lumber	approvals 3. Damaged Beams must not be used 4. Design assumes ton edge is laterally restrained		ICC-ES: ESR-3633	
<ol> <li>Dry service conditions, unless noted other</li> <li>LVL not to be treated with fire retardant</li> </ol>	erwise 5. Provide lateral support at bearing points to avoid lateral displacement and rotation	This design is valid with 2/26/2020	2	соттесн

	/	Cli	ient:	Ben Stout Re	al Estate		Da	ate:	9/18/202	0			Page 4 of 7
	- <b>B 1</b>	Pro	oject:				In	put by:	David La	ndry			
	spesign	Ad	ldress:				Jo	b Name	: Lot 54 Si	erra Villas			
							Pr	roject #:	J0920-41	73			
BM2	Kerto-S LVL	1.7	′50" X	16.00	0" 2-l	Ply - P	ASSE	כן כ	_evel: Level				
						-							
	2												
	1												/
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•		•	•	•									IVIVI
-	a rite		• • • •	• •									1'4"
			· Annalisiana and	•	1								
1 SPF				2 SPF	I								1.1
/ <u>/</u>	6'4"			,	ł								3 1/2"
	0.1			,	r								10112
	6'4"				I								
Member Ir	nformation						Reaction	ns UNF	PATTERN	IED Ib (U	plift)		
Туре:	Girder		Application	on: F	loor		Brg	Live	De	ad	Snow	Wind	Const
Plies:	2		Design M	lethod: A	SD		1	1742	: 6	622	0	0	0
Moisture Cor	ndition: Dry		Building	Code: IE	3C/IRC 2015		2	1742	: 6	622	0	0	0
Deflection LL	.: 480		Load Sha	aring: N									
Importance:	_: 300 Normal		Ceiling:										
Temperature	Temp <= 100°F		Cennig.		iypsuni 1/2								
romporataro	p						Bearings	s					
							Bearing	Length	n Cap	. React D	/Llb To	tal Ld. Case	Ld. Comb.
							1 - SPF	3.500"	45%	622 / ·	1742 23	364 L	D+L
							2 - SPF	3.500"	45%	622 / <sup>-</sup>	1742 23	364 L	D+L
Analysis R	esults												
Analysis	Actual Loc	ation All	lowed	Capacity	Comb.	Case							
Moment	3243 ft-lb	3'2" 34	565 ft-lb	0.094 (9%)	D+L	L							
Choraced	3243 IL-ID	ວ∠ 194 ດວ/9" 110	047 IL-ID	0.107 (17%		L							
Snear	2104 ID 43	93/8 II: 3'2" 0.1	947 ID 147 (1 /490)	0.103 (10%	) D+L								
TL Defl inch	0.011 (L/0331)	3'2" 0.1	147 (L/400) 197 (L/360)	0.080 (8%)	L D+I	L							
		02 0.1	107 (E/000)	0.000 (070)	D.L	L	4						
Design No	otes	Boy poils (	( 100,02") a	+ 10" o o Mo	imum and di	atanaa nat	4						
to exceed	1 Fasten all piles using 4 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".												
2 Refer to la	ast page of calculations for	r fasteners	required for	or specified lo	ads.								
3 Girders an 4 Top brace	re designed to be supporte	ed on the b	ottom edge	e only.									
5 Lateral sle	enderness ratio based on s	single ply v	width.										
ID	Load Type	Lo	cation T	rib Width	Side	Dead 0.9	Live	1 Snov	w 1.15	Wind 1.6	Const. 1.2	25 Commen	ts
1	Uniform				Near Face	47 PLF	139 PLF	F	0 PLF	0 PLF	0 PI	_F F5	
2	Uniform				Far Face	137 PLF	411 PLF	F	0 PLF	0 PLF	0 PI	_F F4	
	Self Weight					12 PLF							
									M			Comtach Inc	
Notes	ed Designs is reenoneible only of the	chemicals Handling 8	& Installatio	n	<ol><li>For flat ponding</li></ol>	t roofs provide p g	roper drainage to	prevent	Meteä Wood	er into		1001 S. Reilly Road Fayetteville NC	1, Suite #639
structural adequacy design criteria at	of this component based on the nd loadings shown. It is the	1. LVL beams 2. Reference	must not be cut	or drilled	nation				301 Merritt 7	Building, 2nd	l Floor	USA 28314	
responsibility of the ensure the compo-	e customer and/or the contractor to onent suitability of the intended	regarding fastening d	installation details, beam st	requirements, mi rength values, and	ulti-ply code				(800) 622-58	50		910-864-TRUS	
application, and to v Lumber	emy the dimensions and loads.	approvals 3. Damaged E	Beams must not	be used					www.metsaw ICC-ES: ESF	/ood.com/us R-3633			
<ol> <li>Dry service cond</li> <li>LVL not to be tree</li> </ol>	ditions, unless noted otherwise eated with fire retardant or corrosive	<ol> <li>Design assi</li> <li>Provide lat lateral displ</li> </ol>	teral support at lacement and ro	bearing points to tation	avoid		until 0/00/000	,				con	птесн
		uapi	and TO		I his o	uesign is valid	untii 2/26/2023	ა					

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isDesign	Client: Ben Stout Real Es Project: Address:	state Date Inpu Job Proie	e: 9/18/2020 t by: David Landry Name: Lot 54 Sierra Villas ect #: J0920-4173	Page 5 of 7
BM2 Kerto-S LVL	1.750" X 16.000"	2-Ply - PASSED	Level: Level	
1 SPF	2 SPF			1'4" 3 1/2"
64	r I			
Paracity       83         Load       27         Yield Limit per Foot       32         Yield Limit per Fastener       81         Yield Mode       IV         Edge Distance       11         Min. End Distance       3"         Load Combination       D+         Duration Factor       1.0	1/100 BOX Halls (.12033 ) at 12       7 %       4.0 PLF       7.4 PLF       .9 lb.       1/2"       -L       00			
Notes Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads. Lumber 1. Dry service conditions, unless noted otherwise	chemicals Handling & Installation 1. LVL beams must not be cut or drilled 2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals 3. Damaged Beams must not be used 4. Design assumes top edge is laterally restrained 5. Provide lateral support at bearing points to avoid	<ol> <li>For flat roofs provide proper drainage to pre ponding</li> </ol>	Manufacturer Info           Metsä Wood           301 Merritt 7 Building, 2nd Floor           Norwalk, CT 06851           (800) 622-5850           www.metsawood.com/us           ICC-ES: ESR-3633	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS



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	Client:	Ben Stout Real Estate	Date:	9/18/2020	Page 7 of 7
	Project:		Input	by: David Landry	-
isDesign	Address:		Job N	lame: Lot 54 Sierra Villas	
· · · ·			Proje	ct #: J0920-4173	
GDH Kerto-S	LVL 1.750"	X 11.875" 2	-Ply - PASSED	Level: Level	
					5
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					↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
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1 SPF End Grain				2 SPF End	Grain ()
/ <u>/</u>		16'1(	ייך		
		1010	, 		
		16'10	")		1
Multi-Ply Analysis					
	nouse of 10d Dourselle	(100.21) + 121			
Fasten all plies using 2	rows of TUG Box halls	(.128x3") at 12" o.c.	. Maximum end distance	e not to exceed 6	
Capacity	0.0 % 0.0 PLF				
Yield Limit per Foot	163.7 PLF				
Yield Limit per Fastener	81.9 lb.				
Yield Mode	IV				
Edge Distance	1 1/2"				
Load Combination	5				
Duration Factor	1.00				
Notes	chemicals	6. Fo	flat roofs provide proper drainage to prev	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road. Suite #639
Calculated Structured Designs is responsible	e only of the Handling & Installa	tion poi	nding	Metsä Wood	Fayetteville, NC USA
design criteria and loadings shown. responsibility of the customer and/or the	It is the 2. Refer to manufact	cut or drilled irer's product information		301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851	28314 910-864-TRUS
ensure the component suitability of the application, and to verify the dimensions and	ne intended fastening details, bear floads.	requirements, multi-ply n strength values, and code		(800) 622-5850	
Lumber	3. Damaged Beams must	not be used ge is laterally restrained		ICC-ES: ESR-3633	
<ol> <li>Dry service conditions, unless noted other</li> <li>LVL not to be treated with fire retardant</li> </ol>	erwise or corrosive 5. Provide lateral suppor lateral displacement ar	t at bearing points to avoid	ie design is valid until 0/06/0000		соттесн
		Ir	nə ucəlyri iə vallu unul 2/20/2023	1	