	•			Signature H	lomes		Da		2/9/202					Page 1 of 6
Tis	Design		roject: ddress:	Lot 6 Wild	hood		•	out by: b Name		y William vood	15			
	-	,	1410001	LOU O VVIIC	10000			oject #:	J0222-					
IDR-1 8	k 2 Kerto-	S LVL	1.7	50" X S	9.250"	2-Ply -	PASSE	ED <sup>L</sup>	_evel: Lev	el				
	2							••••						
				1				and the second se						$7 \leftarrow$
													M	
	C HIMAN		199		al Hin you	- Alter		- AL					IAI/	9 1
and the second second			A ALANA	•	Surface and the second		Service Sectores	•					V V	
	nd Grain					2	SPF End Gra	in .					.	
1			5	5'6"				1					1	3 1/2"
ſ				6'				1						
lember Inf	<b>ormation</b> Girder		Applicati	ion:	Floor		Reaction	s UNF	PATTER Liv		<b>b (Uplift)</b> Dead	Snow	Wind	Cons
Type: Plies:	2		Design N		ASD		Brg Dire			0	1447	1335	0	Cons
Moisture Cond	lition: Dry		Building	Code:	IBC/IRC 2015		2 Verti			0	1447	1335	0	
Deflection LL:	480		Load Sh		No									
Deflection TL:	360		Deck:		Not Checked									
Importance: Temperature:	Normal - II Temp <= 100°F	F												
remperature.	1emp <= 100 P						Bearings							
							Bearing		Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb
							1 - SPF	-	Vert	30%	1447 / 1335			D+S
							End							
nalysis Res							Grain 2 - SPF	3 000"	Vert	30%	1447 / 1335	2782	1	D+S
Analysis		Location Al	llowed 1423 ft-lb	Capacity		Case	End	0.000	Volt	0070	1117 1000	2102	-	2.0
Moment Unbraced	3667 ft-lb 3667 ft-lb		1423 π-id )944 ft-lb	0.254 (25 0.335 (34	-	L	Grain							
Shear	1841 lb	1' 1/4" 79		0.335 (34	-	L 1								
	0.028 (L/2413)			0.232 (23	,	L								
	0.058 (L/1158)		-	) 0.311 (31 <sup>1</sup>	-	L								
esign Note		0 0.	100 (1,000	) 0.011 (01	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	1							
1 Provide sup	port to prevent latera				bearings. Late	ral support	1							
-	e required at the interi lies using 2 rows of 1	-	-	-	aximum end di	stance not								
to exceed 6	".													
	t page of calculations designed to be suppo		-		loads.									
	ust be supported equ		-	e only.										
•	e laterally braced at e	•												
	at be laterally braced a derness ratio based o		-											
ID	Load Type			Trib Width	Side	Dead 0.9	Live 1	Snov	w 1.15	Wind	1.6 Const. 1	.25 Co	mments	
1	Uniform				Тор	445 PLF	0 PLF	4	45 PLF	0 F	PLF 0	PLF B2	TRUSS	
2	Uniform				Тор	30 PLF	0 PLF		0 PLF	0 F	PLF 0	PLF WA	LL	
	Self Weight					7 PLF								
	-													
		chemicals			6. For fla	at roofs provide n	roper drainage to	prevent	Manufact	irer Info		Comtech	, Inc.	#639
Notes				<b>`</b> n	pondin		, siamago to j		Metsä Wo	od		Fayettevi	Reilly Road, Suite lle, NC	+039
Calculated Structured [	Designs is responsible only of the							1			- 0 I E'	LISA		
Calculated Structured E structural adequacy of design criteria and esponsibility of the cu	of this component based on the loadings shown. It is the ustomer and/or the contractor	the 1. LVL beams the 2. Refer to	s must not be cu manufacturer	ut or drilled r's product inf	ormation				301 Merritt Norwalk, C	7 Buildin 7 06851	g, 2nd Floor	USA 28314 910-864-	TRUS	
structural adequacy of design criteria and responsibility of the cu ensure the compone	of this component based on the loadings shown. It is the	the 1. LVL beams the 2. Refer to regarding fastening of approvals	s must not be cu manufacturer installation details, beam s	ut or drilled r's product info requirements, strength values, a	multi-ply				301 Merrit	7 Buildin 7 06851 5850	-	28314	TRUS	
Calculated Structured E tructural adequacy of lesign criteria and esponsibility of the cu ensure the compone upplication, and to verif <b>_umber</b>	of this component based on the loadings shown. It is the ustomer and/or the contractor ent suitability of the intended	the the to ded to ded to to to to to to to to to to to to to	s must not be cu manufacturer installation details, beam s Beams must not sumes top edge	ut or drilled r's product info requirements, strength values, a	multi-ply ind code				301 Merritt Norwalk, 0 (800) 622-	7 Buildin 7 06851 5850 awood.coi	-	28314 910-864-		

isDesi		Project:	re Homes Vildwood	Date: Input by: Job Nam Project #		Page 2 of 6
HDR-1 & 2	Kerto-S LVL	. 1.750")	( 9.250" 2-P	ly - PASSED	Level: Level	
	• •	•	•	• •	<11/2"	9 1.
1 SPF End Grain		5'6"		2 SPF End Grain	<u>}</u> 	↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
		6'		· · · · · ·	ł	
Multi-Ply Analysi						
Fasten all plies usir Capacity Load	ng 2 rows of 10d E 0.0 % 0.0 PLF	3ox nails (.128x3	") at 12" o.c Maxim	num end distance n	ot to exceed 6".	
Yield Limit per Foot	163.7 PLF					
Yield Limit per Fastener Yield Mode	81.9 lb. IV					
Edge Distance Min. End Distance	1 1/2" 3"					
Load Combination Duration Factor	1.00					
Notes	chemic	als	6. For flat roofe pr	ovide proper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639
Calculated Structured Designs is r structural adequacy of this comp design criteria and loadings responsibility of the customer and	responsible only of the ponent based on the shown. It is the d/or the contractor to	eg & Installation ams must not be cut or drilled to manufacturer's product ing installation requiremen	ponding information ts. multi-olv		Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850	Fayetteville, NC USA 28314 910-864-TRUS
ensure the component suitabil application, and to verify the dimen <b>Lumber</b> 1. Dry service conditions, unless t 2. LVL not to be treated with fire	noted otherwise fastenia fastenia approv 3. Damag 4. Design 5. Provide	ng details, beam strength valu	es, and code estrained pints to avoid		(800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633	соттесн
Version 21 20 200 Deward			i nis aesiĝn is	s valid until 3/30/2024		

CSD DESIGN

		Client: Signature Homes Project:		Date: Input by:	2/9/2022 Anthony William	s		Page 3 of
IS	Design	Address: Lot 6 Wildwood		Job Name Project #:	e: 6 Wildwood J0222-0680			
HDR-3	Kerto-S LVL	. 1.750" X 9.250"	2-Ply -	-	Level: Level			
	2							
		1						
•	•	•	•				Γ	$\mathbb{M}$ 1
		atter	The line					9
•	•		and a second second	• • • • • • • • • • • • • • • • • • •			L	
1 SPF E	nd Grain	5'6"	2	2 SPF End Grain			ļ	3 1/2"
/ /		6'		· · · · · ·	1		I	0 112
Member Inf	<b>formation</b> Girder	Application: Flace		Reactions UN		-	Snow Wi	nd Can
Type: Plies:	2	Application: Floor Design Method: ASD		Brg Direction 1 Vertical	Live 0	Dead 1594	Snow Wi 1482	nd Con 0
Moisture Cond	•	Building Code: IBC/IRC	C 2015	2 Vertical	0	1594	1482	0
Deflection LL: Deflection TL:	480 360	Load Sharing: No Deck: Not Che	ackad					
Importance:	Normal - II		ecked					
' Temperature:	Temp <= 100°F							
				Bearings				
				Bearing Length	n Dir. Cap.	React D/L lb	Total Ld. Ca	se Ld. Com
				1 - SPF 3.000"	Vert 34%	1594 / 1482	3076 L	D+S
Analysis Re	culte			_ End Grain				
Analysis	Actual Locat	ion Allowed Capacity Cor	nb. Case	2 - SPF 3.000"	Vert 34%	1594 / 1482	3076 L	D+S
Moment	4055 ft-lb	3' 14423 ft-lb 0.281 (28%) D+S		End				
Unbraced	4055 ft-lb	3' 10944 ft-lb 0.370 (37%) D+S		Grain				
Shear	2035 lb 4'11 3	3/4" 7943 lb 0.256 (26%) D+S						
LL Defl inch	0.031 (L/2174)	3' 0.141 (L/480) 0.221 (22%) S	L					
	0.064 (L/1047)	3' 0.188 (L/360) 0.344 (34%) D+S	S L					
Design Not	es			1				
1 Provide sup	port to prevent lateral mov	ement and rotation at the end bearing	s. Lateral support	1				
		arings by the building code. ox nails (.128x3") at 12" o.c. Maximum	end distance not					
to exceed 6	".							
	t page of calculations for fa designed to be supported	asteners required for specified loads.						
	nust be supported equally b							
•	e laterally braced at end be							
	st be laterally braced at end derness ratio based on sin	-						
ID	Load Type	Location Trib Width Side	Dead 0.9	Live 1 Sno	w 1.15 Wind	1.6 Const. 1.	.25 Comments	
1	Uniform	Тор	494 PLF		94 PLF 0 F		PLF A2 TRUSS	
2	Uniform	Тор	30 PLF	0 PLF	0 PLF 0 F		PLF WALL	
	Self Weight		7 PLF					
	5							
Notes		chemicals	6. For flat roofs provide r	proper drainage to prevent	Manufacturer Info		Comtech, Inc. 1001 S. Reilly Road, S	uite #639
Calculated Structured	Designs is responsible only of the Ha	andling & Installation	ponding		Metsä Wood 301 Merritt 7 Building	a 2nd Elect	Fayetteville, NC USA	
design criteria and responsibility of the c	loadings shown. It is the 2. ustomer and/or the contractor to	LVL beams must not be cut or drilled Refer to manufacturer's product information regarding installation requirements, multi-ply			Norwalk, CT 06851	, ∠πα <b>ΕΙΟ</b> ΟΓ	28314 910-864-TRUS	
ensure the compone	ent suitability of the intended fy the dimensions and loads.	fastening details, beam strength values, and code approvals			(800) 622-5850 www.metsawood.cor	n/us		
application, and to veri								
umber	4.	Damaged Beams must not be used Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid			ICC-ES: ESR-3633			тесн

		Client:	Signature Homes		Date:	2/9/2022	Page 4 of 6
	_	Project:			Input by:	Anthony Williams	
İS	Design	Address:	Lot 6 Wildwood		Job Name		
					Project #:		
HDR-3	Kerto-S L	VL 1.750	)" X 9.250"	2-Ply	- PASSED	Level: Level	
							,
•	•	•	•	•	• •	ŧ.	$\overline{M}$ 1
						1/2"	
						$\overline{\mathbf{V}}$	9 1/
•	•	•	•	•	• • –		
	End Grain				2 SPF End Grain		
	-		5'6"				3 1/2"
					<u> </u>	,	3 1/2
1			6'		,		
Multi-Ply A	nalysis						
		of 10d Boy pails	(128v2") at 12" a	a c Maximu	m end distance n	at to avcood 6"	
Capacity		0.0 %				JI IO EXCEED 0.	
Load		).0 PLF					
Yield Limit per F		163.7 PLF					
Yield Limit per F Yield Mode		31.9 lb. V					
Edge Distance		v I 1/2"					
Min. End Distan	ce 3	3"					
Load Combinati							
Duration Factor	1	1.00					
Notes		chemicals	6	3. For flat roofs provid	de proper drainage to prevent	Manufacturer Info	Comtech, Inc.
Calculated Structured	Designs is responsible only of th of this component based on th	e Handling & Installa	tion	ponding	. , is protonit	Metsä Wood	<ul> <li>1001 S. Reilly Road, Suite #639</li> <li>Fayetteville, NC</li> <li>USA</li> </ul>
design criteria and	d loadings shown. It is th	e 2. Refer to manufactu	rer's product information			301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851	28314 910-864-TRUS
ensure the compor application, and to ver	customer and/or the contractor t nent suitability of the intende rify the dimensions and loads.	d regarding installation d fastening details, bean approvals	requirements, multi-ply n strength values, and code			(800) 622-5850 www.metsawood.com/us	
Lumber	ions, unless noted otherwise	<ol> <li>Damaged Beams must</li> <li>Design assumes top ed</li> </ol>	ge is laterally restrained			ICC-ES: ESR-3633	
2. LVL not to be treat	ions, unless noted otherwise ated with fire retardant or corrosiv	E Provide lateral support	at bearing points to avoid	This desian is v	alid until 3/30/2024		соттесн
L				5			

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			Client:	Signature Hom	es		Date		2/9/2022					Page 5 of 6
Tis	Design		Project: Address:	Lot 6 Wildwo	bod		•	ut by: Name:	Anthony 6 Wildw	' Williams ood	i			
				Lot o Wildin	500			ject #:	J0222-0					
GDH	Kerto-S L'	VL 1.	750" >	X 14.000	)" 2-	Ply - F	ASSED	L	evel: Leve					
						-								
		2							•••••					
	•••••		•••••	•••••	1	• • • • • • • • • • •		•••••	•••••		•••••		П	- <i>f</i>
	and the second se				Marine .				March 1				M	
		Second Party Party			•		100 A 100			·	A CONTRACT		M	1.2"
1 SPF End	d Grain										2 SPF E	ind Grain		
/					18'3"								3	1/2"
∤					18'10"								•	
												•		
Member In	formation						Reactions		ATTER	NED Ih	(Uplift)			
Туре:	Girder		Applicat	ion: Flo	or		Brg Direc		Live		Dead	Snow	Wind	Const
Plies:	2		Design I				1 Vertic	al	(	)	2363	377	0	0
Moisture Cond Deflection LL:			Building Load Sh		C/IRC 2015		2 Vertic	al	(	)	2363	377	0	0
Deflection TL:			Deck:		t Checked									
Importance:	Normal - II													
Temperature:	Temp <= 10	0°F					Des des se							
							Bearings	41-	Dia	0	D t D/l	II. T-4-1		L d. Oamah
							Bearing L	-	Dir. Vert	26%	React D/L 2363 / 3		Ld. Case	Ld. Comb. D+S
							End		Ven	2070	200070	2103	-	0.0
Analysis Re							Grain 2 - SPF 3	8 500"	Vert	26%	2363 / 3	77 2739		D+S
Analysis	Actual	Location A			Comb.	Case	End		Ven	2070	2000/0	11 2155	L	0.0
Moment Unbraced	10589 ft-lb 12277 ft-lb		24299 ft-lb 12288 ft-lb	0.436 (44%) 0.999	D D+S	Uniform L	Grain							
-				(100%)	_									
Shear	2009 lb 0.068 (L/3239)	17'4 1/2" 9		0.214 (21%) ) 0.148 (15%)		Uniform L								
	0.495 (L/445)			) 0.808 (81%)		L								
Design Not				, , ,			1							
1 Provide su	oport to prevent late				arings. Later	ral support	4							
	e required at the in plies using 3 rows o	0	,	0	num end dis	stance not								
to exceed 6	5".													
	t page of calculation designed to be su		•		as.									
	nust be supported													
	e laterally braced a st be laterally brace			D.C.										
8 Lateral sler	iderness ratio base	ed on single ply	y width.											
ID	Load Type	L	ocation		Side	Dead 0.9	Live 1		w 1.15		.6 Const		omments	
1	Uniform Uniform				Гор Гор	40 PLF 200 PLF	0 PLF 0 PLF		40 PLF 0 PLF	0 PI 0 PI		0 PLF R · 0 PLF WA		
2					юр	200 FLF	UFLF		UFLF	UFI	-	UFLF VVA		
	Self Weight													
Notes		chemica			6. For flat ponding	t roofs provide p	proper drainage to pr	eveni	Manufactu			Comtech 1001 S.	Reilly Road, Suite #	#639
structural adequacy	Designs is responsible only of this component based of loadings shown. It is	on the 1. LVL bea	g & Installation ms must not be cu	it or drilled		3			Metsä Woo 301 Merritt	7 Building	2nd Floor	Fayettev USA 28314	.lie, NC	
responsibility of the o ensure the comport	customer and/or the contract ent suitability of the int	ctor to regardin tended fastening	g installation	r's product informa requirements, mult strength values, and c	-ply				Norwalk, C <sup>-</sup> (800) 622-5	06851 850		910-864-	TRUS	
application, and to ver Lumber	ify the dimensions and loads	<ol> <li>approva</li> <li>3. Damage</li> </ol>	Ís ed Beams must no	t be used					www.metsa ICC-ES: ES	wood.com	/us			
<ol> <li>Dry service condition</li> <li>LVL not to be treated</li> </ol>	ons, unless noted otherwise ted with fire retardant or con	5. Provide	assumes top edge lateral support a isplacement and r	is laterally restrained it bearing points to a ptation		lesign is valid	l until 3/30/2024						сот	есн
L					1113 (	- seign is vallu								

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	Client: Sigr	nature Homes	Date:	2/9/2022	Page 6 of 6
	Project:	lature nomes	Input by:		Fage 0 01 0
isDesign	Address: Lot	6 Wildwood	Job Nam		
				J0222-0680 Level: Level	
GDH Kerto-S L	VL 1.750 A	4.000" 2-PI	y - PASSED		
					& <i>★</i>
			• • •		
		• • •			····
1 SPF End Grain				2 SPF End	Grain /
		18'3"			3 1/2"
<u> </u>		18'10"			
Multi-Ply Analysis					
Fasten all plies using 3 rov	vs of 10d Box nails (.128	3x3") at 12" o.c Max	imum end distance n	ot to exceed 6".	
Capacity	0.0 %				
₋oad ∕ield Limit per Foot	0.0 PLF 245.6 PLF				
/ield Limit per Fastener	81.9 lb.				
/ield Mode	IV 1 1/2"				
Edge Distance ⁄lin. End Distance	1 1/2" 3"				
Load Combination	0				
Duration Factor	1.00				
					1
Notes	chemicals	6. For flat roof ponding	s provide proper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639
Calculated Structured Designs is responsible onl structural adequacy of this component based design criteria and loadings chown It	on the 1. LVL beams must not be cut or dri	illed		Metsä Wood 301 Merritt 7 Building, 2nd Floor	Fayetteville, NC USA 28314
design criteria and loadings shown. It responsibility of the customer and/or the contra ensure the component suitability of the in	Is the 2. Refer to manufacturer's plactor to regarding installation required fastening details beam strength	roduct information rements. multi-ply		Norwalk, CT 06851 (800) 622-5850	28314 910-864-TRUS
application, and to verify the dimensions and load	<ul> <li>approvals</li> <li>3. Damaged Beams must not be us</li> </ul>	ed		www.metsawood.com/us ICC-ES: ESR-3633	
1. Dry service conditions, unless noted otherwise 2. LVL not to be treated with fire retardant or co	<ol> <li>Design assumes top edge is late</li> <li>Provide lateral support at bear lateral displacement and rotation</li> </ol>	ing points to avoid	n is valid until 2/20/2024		соттесн
i de la constante de	,	i nis desig	n is valid until 3/30/2024		

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