



1	isDesign	Client: Project: Address:	Watermark Homes Lot 116 Ballard Wo	oods	Date: Input by: Job Nam Project #	8/24/2021 Curtis Quick e: The Silver Bell III : J0821-5072	Page 3 of 24
BM1	Kerto-S LVI	L 1.750"	X 16.000"	2-Ply - F	ASSED	Level: Level	
	• • •	•••	•••	•••	•••	• • •	· · ·
1 Hang	er (IHF3516 (Max))	•••	•••	•••	• • • 2 SPF E	End Grain 3 S	
/		1	1'11 1/4"			4' 3/4"	3 1/2"
/				16'		·	f
Multi-Ply	y Analysis						
Fasten all	l plies using 3 rows	of 10d Box nails 78.6 %	(.128x3") at 12"	o.c Maximum	end distance n	ot to exceed 6".	
Load		193.0 PLF					
rield Limit p Yield Limit p	ber Foot	245.6 PLF 81.9 lb.					
Yield Mode		IV 1.1/0"					
±dge Distan ∕lin. End Dis	stance	1 1/2" 3"					
_oad Combi	ination	D+L					
Duration Fac	ctor	1.00					
Notes		chemicals		6. For flat roofs provide	proper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #630
Calculated Structural	ctured Designs is responsible only of the	he Handling & Installat	ion	ponding	U	Metsä Wood	Fayetteville, NC USA
design criteria responsibility of	a and loadings shown. It is the customer and/or the contractor	to regarding installation	cut or drilled rer's product information requirements multi plu			301 Merritt / Building, 2nd Floor Norwalk, CT 06851	28314 910-864-TRUS
ensure the co application, and	omponent suitability of the intended to verify the dimensions and loads.	ed fastening details, beam approvals	strength values, and code			(800) 622-5850 www.metsawood.com/us	
Lumber	conditions, unless noted otherwise	 Damaged Beams must r Design assumes top edge 	tot be used te is laterally restrained			ICC-ES: ESR-3633	
2. LVL not to b	be treated with fire retardant or corrosi	ve lateral displacement and	rotation	This design is valid	1 until 3/30/2024		COMTECH



1	isDesign	Client: Project: Address:	Watermark Homes Lot 116 Ballard Woods	Date: Input by Job Nar Project	8/24/2021 r: Curtis Quick ne: The Silver Bell III #: J0821-5072	Page 5 of 24
BM3	Kerto-S LV	/L 1.750" X	24.000" 2-P	ly - PASSED	Level: Level	
•	• • • •	• • • •	• • • •	· · · · ·	· · · · · ·	···
	••••	• • •		• • • •		· · · · · · · · · · · · · · · · · · ·
1 SPF	End Grain			<u></u> .	2 SPF End	
			24'			/ 3 1/2"
			24			I
Multi-Pl	y Analysis					
Fasten al Capacity	l plies using 3 row	s of 10d Box nails (. 0.0 %	128x3") at 12" o.c Ma	ximum end distance	not to exceed 6".	
Load Yield Limit r	per Foot	0.0 PLF 245.6 PLF				
Yield Limit p	per Fastener	81.9 lb.				
Yield Mode Edge Distar	nce	IV 1 1/2"				
Min. End Di	stance	3"				
Load Comb	ination	1.00				
Notes		chemicals	6. For flat ro	ofs provide proper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Poort Suite #630
Calculated Stru structural adeq design criteria responsibility o	Inctured Designs is responsible only of quacy of this component based or a and loadings shown. It is if the customer and/or the contract	of the Handling & Installatio 1. LVL beams must not be cut 2. Refer to manufacturer' regarding installation	n ponding or drilled s product information requirements, multi-olv		Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851	Fayetteville, NC USA 28314 910-864-TRUS
ensure the c application, and Lumber 1. Dry service	component suitability of the inte d to verify the dimensions and loads. conditions, unless noted otherwise	nded fastening details, beam st approvals 3. Damaged Beams must not 4. Design assumes top edge i 5. Provide lateral support of	tength values, and code be used s laterally restrained bearing points to avoid		(800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633	
 LVL not to b 	ue ueated with fire retardant or corr	lateral displacement and ro	ation This des	ign is valid until 3/30/2024		

CSD DESIGN



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. except for regions covered by concentrated load fastening. Maximum end distance not to exceed 6".

Capacity	63.3 %
Load	155.5 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

Concentrated Load

Fasten at concentrated side load at 10-2-10 with a minimum of (24) – 16d Common nails (.162x3.5") in

the	pattern	shown.	
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Capacity	96.5 %	
Load	2949.0lb.	
Total Yield Limit	3056.0 lb.	
Cg	0.9997	
Yield Limit per Fastener	127.4 lb.	
Yield Mode	IV	
Load Combination	D+L	
Duration Factor	1.00	

Min/Max fastener distances for Concentrated Side Loads

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.

1. Dry service conditions, unless noted otherwise 2. LVL not to be treated with fire retardant or corrosive

Notes

Lumber

chemicals

3

Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. except for regions covered by concentrated load fastening. Maximum end distance not to exceed 6"

Capacity	86.3 %
Load	212.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

Concentrated Load

Fasten at concentrated side load at 6-3-12 with a minimum of (10) – 10d Box nails (.128x3") in the

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 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 interded application, and to verify the dimensions and loads. Lumber 1. Dry service conditions, unless noted otherwise 2. LVL not to be treated with fire retardant or corrosive	Handling & Installation 1. LVL beams must not be cut or drilled 2. Refer to manufacturer's product information regarding installation requirements, multi-pily 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 lateral displacement and rotation	ponding This design is valid until 3/30/2024	Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633	Fayetteville, NC USA 28314 910-864-TRUS

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CSD DESIGN

1	isDesign	Client: W Project: Lo Address:	/atermark Homes ot 116 Ballard Woods	Date: Input by: Job Name: Project #:	8/24/2021 Curtis Quick The Silver Bell III J0821-5072	Page 13 of 2
BM5	Kerto-S LVL	1.750" X	16.000" 2-Ply	- PASSED	evel: Level	
•	• • •	• •	• • •	• • •	• • •	·
•	• •	• • •	• •	• • •	· · · ·	
1 SPF					2 SPF	
			14'6 1/2"		1	1' 3 1/2"
·						·
Multi-Ply	Analysis					
asten all apacity	plies using 3 rows o	f 10d Box nails (.1) 0 %	28x3") at 12" o.c Maxi	mum end distance not	to exceed 6".	
bad	0.1	0 PLF				
ield Limit pei ield Limit pei	r Foot 24 r Fastener 81	1.9 lb.				
ield Mode	IV					
dge Distanc	e 1 [*]	1/2"				
oad Combin	ance 3" ation					
Juration Fact	or 1.0	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 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 interded application, and to verify the dimensions and loads. Lumbor 1. Dry service conditions, unless noted otherwise 2. LVL not to be treated with fire retardant or corrosive	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 lateral displacement and rotation	ponding This design is valid until 3/30/2024	Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us ICC-ES: ESR-3633	Fayetteville, NC USA 28314 910-864-TRUS

		Client: Project:	Watermark Homes Lot 116 Ballard Woo	ds	Date: Input b	8/24/202 by: Curtis Qu	1 ick			Page 14 of :
is	Design	Address:			Job Na Proiec	ame: The Silve t #: J0821-50	r Bell III 72			
BM6	Kerto-S LVL	1.750'	' X 9.250"	2-Ply -	PASSED	Level: Level	· <u>-</u>			
				3	<u></u>	4				
	2									
		•	•	•	•	•			M	
	Critter .	•	189 m	n .	-	Coltina .			MA	9 1
	End Grain		and the second se		2 SPE E				<u> </u>	
			6'7"		2011					3 1/2"
ł			6'7"							
lember In	formation	Applica			Reactions U		ED lb (Uplift)	Spow	Wind	Conc
Plies:	2	Design	Method: ASD		1 Vertical	2189	1558	0	0	Cons
Moisture Con	dition: Dry	Building	Code: IBC 201	2	2 Vertical	5142	4511	0	0	
Deflection LL:	480	Load S	naring: No							
mportance:	Normal - II	Glass:	Supports No							
Temperature:	Temp <= 100°F	Deck:	Not Che	cked						
	·				Bearings					
					Bearing Ler	ngth Dir.	Cap. React D/L I	b Total L	d. Case	Ld. Comb
					1 - SPF 3.50	00" Vert	35% 1558 / 218	9 3747 L		D+L
nalveie De					End Grain					
		ation Allowed	Capacity Com	b Casa	2 - SPF 3.50	00" Vert	91% 4511 / 514	2 9653 L		D+L
Moment	5338 ft-lb 3'	3 1/2" 12542 ft-lb	0 426 (43%) D+I	ID. Case	End					
Unbraced	5338 ft-lb 3'	3 1/2" 9934 ft-lb	0.537 (54%) D+L	L	Grain					
Shear	2543 lb 1	' 3/4" 6907 lb	0.368 (37%) D+L	L						
LL Defl inch	0.057 (L/1296) 3'3	3 1/2" 0.153 (L/48	0) 0.370 (37%) L	L						
TL Defl inch	0.097 (L/757) 3'3	3 1/2" 0.204 (L/36	0) 0.475 (48%) D+L	L						
esign Not	tes				1					
1 Provide su	pport to prevent lateral m	ovement and rotation	n at the end bearings	. Lateral support	1					
2 Fasten all i	e required at the interior to olies using 2 rows of 10d	pearings by the buil Box nails (128x3")	ding code. at 12" o.c. Maximum	end distance not						
to exceed (6".									
3 Refer to las 4 Girders are	st page of calculations for designed to be supported	fasteners required	for specified loads.							
5 Top loads r	nust be supported equally	y by all plies.	ge only.							
6 Top must b	e laterally braced at end	bearings.								
7 Bottom mu 8 Lateral slei	st be laterally braced at enderness ratio based on s	nd bearings. single ply width								
D	Load Type	Location	Trib Width Side	Dead 0.9	Live 1 S	Snow 1.15	Wind 1.6 Const.	1.25 Comr	nents	
1	Uniform		Тор	120 PLF	0 PLF	0 PLF	0 PLF 0) PLF Wall		
2	Uniform		Тор	160 PLF	479 PLF	0 PLF	0 PLF (PLF F03		
3	Uniform		Top	186 PLF	186 PLF	0 PLF	0 PLF () PLF B4		
4	Point	6-6-4	Тор	2953 lb	2953 lb	0 lb	0 lb	0 lb B3A		
	Bearing Length	0-3-8								
	Self Weight			7 PLF						
lotes		chemicals	6	6. For flat roofs provide p	roper drainage to prever	Manufacture	r Info	Comtech, Inc 1001 S. Reilly	, Road, Suite #	339
Calculated Structured	Designs is responsible only of the of this component based on the	Handling & Installat	on ut or drilled	ponding		Metsä Wood 301 Merritt 7	Building 2nd Floor	Fayetteville, N USA	IC	-
esign criteria and esponsibility of the	d loadings shown. It is the customer and/or the contractor to	2. Refer to manufactur regarding installation	er's product information requirements, multi-ply			Norwalk, CT	06851 50	28314 910-864-TRU	s	
pplication, and to ve	rify the dimensions and loads.	fastening details, beam approvals 3. Damaged Beams must n	strength values, and code			www.metsaw	ood.com/us			
. Dry service condit	ions, unless noted otherwise	 Design assumes top edg Provide lateral support 	e is laterally restrained at bearing points to avoid			ICC-ES: ESF	-3033			есні
 LVL not to be treat 	ateu with fire retardant or corrosive	lateral displacement and	rotation	This design is valid	until 3/30/2024					

	Client: Watermark Homes	Date:	8/24/2021	Page 15 of 2
	Project: Lot 116 Ballard Wo	bods Input by:	Curtis Quick	
isDesign	Address:	Job Nam	e: The Silver Bell III	
		Project #	J0821-5072	
BM6 Kerto-S LVL	1.750" X 9.250"	2-Plv - PASSED	Level: Level	
		j		
	• •	• •	• -	
			1/2	IVIVI I
			$\frac{1}{\Sigma}$	9 1/4
• •	• •	• •	•	
		2 SPE End		, ,
	017#		Crain	
	6'7"			3 1/2"
1	6'7"		1	
Multi-Ply Analysis				
		A A A A A A A A A A A A A A A A A A A		
Fasten all piles using 2 rows of 100	d Box halls (.128x3") at 12"	o.c Maximum end distance n	ot to exceed 6".	
Load 0.0 PLF	F			
Yield Limit per Foot 163.7 F	PLF			
Yield Limit per Fastener 81.9 lb.				
Edge Distance 1 1/2"				
Min. End Distance 3"				
Load Combination				
Duration Factor 1.00				
			Manufacturor Info	Comtech. Inc.
Notes ch Calculated Structured Designs is responsible only of the Han	nemicals Idling & Installation	6. For flat roofs provide proper drainage to prevent ponding	Metsä Wood	1001 S. Reilly Road, Suite #639 Fayetteville, NC
structural adequacy of this component based on the 1. LV design criteria and loadings shown. It is the 2 p	/L beams must not be cut or drilled efer to manufacturer's product information		301 Merritt 7 Building, 2nd Floor	USA 28314
responsibility of the customer and/or the contractor to ensure the component suitability of the intended far	egarding installation requirements, multi-ply istening details, beam strength values, and code		(800) 622-5850	910-864-TRUS
application, and to verify the dimensions and loads. ap Lumber 3. Da	pprovals amaged Beams must not be used		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 corrosive	esign assumes top edge is laterally restrained rovide lateral support at bearing points to avoid teral displacement and rotation			соттесн
la		This design is valid until 3/30/2024		

	Client: Project:	Watermark Homes	ode	Date:	8/24/2021	Page 17 of 24
isDesign	Address:		Jus	Job Name:	The Silver Bell III	
				Project #:	J0821-5072	
BM7 Kerto-S LVL	. 1.750	" X 9.250"	2-Ply - PASS	ED	evel: Level	
	•	•	• •	•	•	•
				_		9 1/4
	•	•	• •	•	•	
1 SPF						2 SPF
			8'7"			1 13 1/2"
1			8'7"			1
Multi-Ply Analysis						
Fasten all plies using 2 rows of	10d Box nails	(.128x3") at 12"	o.c Maximum end dist	ance not	t to exceed 6".	
Load 0.0	PLF					
Yield Limit per Foot 163 Yield Limit per Fastener 81.	3.7 PLF 9 lb.					
Yield Mode IV	(o)					
Edge Distance 1 1/ Min. End Distance 3"	/2"					
Load Combination	0					
	0					
Notes Calculated Structured Designs is responsible only of the	chemicals Handling & Installat	ion	6. For flat roofs provide proper drainage ponding	to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC
structural adequacy of this component based on the design criteria and loadings shown. It is the	1. LVL beams must not be 2. Refer to manufactu	cut or drilled rer's product information			301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851	USA 28314 910-864-TRUS
responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.	regarding installation fastening details, beam approvals	requirements, multi-ply strength values, and code			800) 622-5850 www.metsawood.com/us	910-004-1 KUS
Lumber 1. Dry service conditions, unless noted otherwise	 Damaged Beams must Design assumes top ed Provide lateral support 	not be used ge is laterally restrained at bearing points to avoid		i	CC-ES: ESR-3633	
2. LVL not to be treated with fire retardant or corrosive	lateral displacement and	I rotation	This design is valid until 3/30/20	24		соттесн

Client: Watermark Home Proiect: Lot 116 Ballard W	s [/oods I	Pate: 8/24/2021	Page 19 of
isDesign Address:	J	ob Name: The Silver Bell III	
BM1 (Roof) Kerto-S LVL 1.750'' X 18.00	0" 2-Ply - PASSI	ED Level: Level	
· · · · · · · · ·	• • • •	• • • •	
· · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·
1 SPF End Grain		2 Han	ger (THD414)
	18'9"		/ 3 1/2"
1	18'9"		1
Multi-Ply Analysis			
asten all plies using 3 rows of 10d Box nails (.128x3") at 12 apacity 0.0 %	" o.c Maximum end dista	nce not to exceed 6".	
oad 0.0 PLF			
eld Limit per Fastener 81.9 lb.			
ield Mode IV			
dge Distance 1 1/2"			
bad Combination			
Juration Factor 1.00			
Notes chemicals	6. For flat roofs provide proper drainage t	prevent Manufacturer Info	Comtech, Inc.
Calculated Structured Designs is responsible only of the Handling & Installation	ponding	Metsä Wood	Fayetteville, NC
structural adequacy of this component based on the 1. LVL beams must not be cut or drilled design criteria and loadings shown. It is the 2. Refer to manufacturer's product information		301 Merritt 7 Building, 2nd Flo Norwalk, CT 06851	28314 010-864 TPUS
esponsioning of the customer anuon the contractor to ensure the component suitability of the intended application and to verify the dimensions and loads		(800) 622-5850	
Lumber A difference of the comparison of and todays. A difference of the comparison		www.metsawood.com/us ICC-ES: ESR-3633	
 Dry service conditions, unless noted otherwise LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive LVL not to be treated with fire retardant or corrosive L	The second second second		сотесн
	i his design is valid until 3/30/20	24	

CSD DESIGN

		Client: Proiect:	Watermark Homes Lot 116 Ballard Wood	ds		Date: Input I	8 bv: C	3/24/2021 Curtis Quick				Page 20 of 24
lis	Design	Address:				Job N	lame: T	The Silver Be				
		4 750					ct#: J	J0821-5072				
GDH1	Kerto-S LVL	1./50	X 11.8/5	2-Piy -	PA	SSED						
We wanted and the second second second				1	Second States of Contraction of Cont	and the second second second	•				ш	_/_
	Contraction of the second	and the	18 m	12 100	-		1		- The second		M	11 7/8"
1 SPF		•	2 SPF	. <u> </u>	-	•			• •	3 SPF	Ш	_ <u>/</u>
/	10'5"			1			10'5	5"				1/2"
<u></u>			20)'10"			100				, 10	172
Member In	formation				Rea	ctions l	JNPAT	TERNED	lb (Uplift)			
Туре:	Girder	Applica	tion: Floor		Brg	Directio	on	Live	Dead	Snow	Wind	Const
Plies: Moisture Con	2 dition: Drv	Design Buildin	Method: ASD g Code: IBC 2012	2	1	Vertical		1498 4608	1536 4724	0	0	0
Deflection LL	480	Load S	haring: No		3	Vertical		4000 1498	1536	0	0	0
Deflection TL	360	Deck:	Not Cheo	cked								
Importance:	Normal - II											
remperature.	lemp <= 100 P				Bea	rings						
					Bea	aring Lei	ngth	Dir. Ca	p. React D/L I	o Total	Ld. Case	Ld. Comb.
					1-	SPF 3.5	500"	Vert 62	% 1515 / 171	3226	L_	D+L
Analysis Re	sults				2-	SPF 18.	.000"	Vert 35	% 4766 / 464	B 9414	LL	D+L
Analysis	Actual Location	Allowed	Capacity Com	b. Case	3-	SPF 3.5	500	vert 62	% 1515/171	J 3226	L	D+L
Neg Momen	t -9590 ft-lb 10'5"	19911 ft-lb	0.482 (48%) D+L	LL								
Unbraced	-9590 ft-lb 10'5"	9594 ft-lb	1.000 D+L (100%)	LL								
Pos Momen	t 6319 ft-lb 16'5 5/8"	19911 ft-lb	0.317 (32%) D+L	_L								
Unbraced	6319 ft-lb 16'5 5/8"	6324 ft-lb	0.999 D+L	_L								
Shear	3430 lb 8'8 1/8"	8867 lb	0.387 (39%) D+L	LL								
LL Defl inch	0.078 (L/1570) 5'1 1/8"	0.255 (L/48	0) 0.306 (31%) L	L_								
TL Defl inch	0.132 (L/928) 15'10 7/8"	0.340 (L/36	0) 0.388 (39%) D+L	_L								
Design Not	tes											
1 Provide su may also b	pport to prevent lateral moveme e required at the interior bearin	ent and rotation gs by the buil	on at the end bearings ding code.	. Lateral support								
2 Fasten all	olies using 2 rows of 10d Box n	ails (.128x3")	at 12" o.c. Maximum e	end distance not								
3 Refer to la	st page of calculations for faste	ners required	for specified loads.									
4 Girders are	e designed to be supported on t	he bottom ed	ge only.									
6 Top must b	nust be supported equally by a le laterally braced at a maximur	n of 15'8 1/8"	0.C.									
7 Bottom mu	st be laterally braced at a maxi	mum of 9'7" o	o.c.									
8 Lateral slei	nderness ratio based on single	ply width.										
Natao	chen	nicale	6	For flat roofs provide	proper drai	name to preve	ent Mar	nufacturer Inf	ō	Comtech	, Inc.	
Calculated Structured	Designs is responsible only of the Handl	ing & Installat	ion	ponding	proper ura	nage to preve	Met	tsä Wood			teilly Road, Suite ile, NC	#639
design criteria and responsibility of the	d loadings shown. It is the customer and/or the contractor to	peams must not be r to manufactur rding installation	cut or drilled er's product information requirements, multi-ply				301 Nor	walk, CT 0685	ang, ∠nd Floor 51	28314 910-864-	TRUS	
ensure the comport application, and to ve	nent suitability of the intended faste rify the dimensions and loads.	ning details, beam ovals	strength values, and code				(800 www	u) 622-5850 w.metsawood.	com/us			
LUMDEr 1. Dry service condit 2. UVL not to be trained	ions, unless noted otherwise ted with fire retardant or correcive 5. Prov	gn assumes top edg ide lateral support	e is laterally restrained at bearing points to avoid				ICC	-es: esr-363	33		omt	есні
 ∠. Lv⊥ not to be treat 	later	al displacement and	rotation	This design is val	d until 3/3	30/2024						
Version 21.20.299	Powered by iStruct [™] Dataset: emb	edded								CCD	DRAW	

	-		Client:	Watermark Homes	3	Date:	8/24/2021	Page 22 of 2
1			Project:	Lot 116 Ballard We	oods	Input by	: Curtis Quick	
i	isDesign		Address:			Job Nan	ne: The Silver Bell III	
						Project #	#: J0821-5072	
GDH1	Korto-S	IVI	1 750'	' X 11 875	" 2_Plv	- PASSED	Level: Level	
CDIII			1.700	X 11.070	<u> 2</u> -1 iy			
								\7
	• •	• •	• •	•••	• •	• • •	• • • •	· ·· = M 1
	• •				• •			· · · · · · · · · · · · · · · · · · ·
1 SPF				2 SP	F			_{3 SPF} A
1		10'5"			1		10'5"	13 1/2"
<i> </i>					20'10"			
·								•
Multi-Ply	Analysis							
Fasten all r	olies using 2 ro	ws of 10d	Box nails	(128x3") at 12"	o.c. Maximu	m end distance r	not to exceed 6".	
Capacity		0.0 %	Box Halls	(.120/07/07/12				
Load		0.0 PLF						
Yield Limit per	Foot	163.7 PLF	=					
Yield Limit per	Fastener	81.9 lb.						
Yield Mode		IV 1.1/0"						
Min End Distance		⊺ 1/∠ 3"						
Load Combina	ation	0						
Duration Facto	or	1.00						
Notes Calculated Structur structural adequac design criteria a	red Designs is responsible or y of this component based and loadings shown. It	chem nly of the Handli d on the 1. LVL b is the 2 Refer	icals ng & Installati eams must not be of to manufacture	ion cut or drilled rer's product information	 For flat roofs provid ponding 	le proper drainage to prevent	Manufacturer Info Metsä Wood 301 Merritt 7 Building, 2nd Floor	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314
Notes Calculated Structur structural adequac design criteria a responsibility of th ensure the comp	red Designs is responsible or cy of this component based and loadings shown. It is customer and/or the cont ponent suitability of the	chem nly of the d on the is the tractor to intended	icals ng & Installati eams must not be e to manufactur ding installation ning details, beam	ion cut or drilled er's product information requirements, multi-ply strength values, and code	 For flat roofs provid ponding 	le proper drainage to prevent	Manufacturer Info Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS
Notes Calculated Structur structural adequac design criteria responsibility of th ensure the comp application, and to Lumber	red Designs is responsible or y of this component base and loadings shown, it te customer and/or the cont ponent suitability of the verify the dimensions and loading the dimensions and loading	hly of the d on the is the tractor to intended ads.	icals ng & Installat i eams must not be (to manufactur ding installation ning details, beam vals aged Beams must n	ion cut or drilled rers product information requirements, multi-ply strength values, and code iot be used	 For flat roofs provid ponding 	de proper drainage to prevent	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
Notes Calculated Structur structural adequac design criteria a responsibility of th ensure the comp application, and to Lumber 1. Dry service con 2. LVL not to be to	red Designs is responsible or py of this component based and loadings shown. It is customer and/or the cont ponent suitability of the verify the dimensions and load hditions, unless noted otherwire reated with fire retardant or	hly of the d on the is the tractor to das. ise se se se torrosive tractor to tractor to to tractor to to to to to to to to to to to to to	icals ng & Installati eams must not be of to manufactur ding installation ing details, beam vals aged Beams must nn assumes top edg de lateral support	ton but or drilled er's product information requirements, multi-ply strength values, and code to be used to is laterally restrained at bearing points to avoid arctitude	 For flat roofs provid ponding 	Je proper drainage to prevent	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

T is	sDesign		Client: Project: Address:	Watermark Homes Lot 116 Ballard Wo	s oods	Da Inj Jo	ate: put by: b Name:	8/24/2021 Curtis Quick The Silver Bell III		Page 24 of 24
GDH2	Kerto-S	LVL	1.750'	' X 11.875'	" 2-Ply	Pr - PASSE	oject #:	J0821-5072 evel: Level		
	•	•	•	•	•	•	•	• • •	<1 1/2"	11 7/8"
1 SPF	•	•	•	•	•	•	•	2 SPF	$\overline{+}$	
				9'10)" 					3 1/2"
1				9.10)"			I		
Fasten all p Capacity Load Yield Limit per l Yield Mode Edge Distance Min. End Distar Load Combinat Duration Factor	Foot Foot Fastener	ws of 10d 0.0 % 0.0 PLF 163.7 PLF 81.9 lb. IV 1 1/2" 3" 1.00	Box nails (.128x3") at 12"	o.c Maxim	um end dista	nce not	t to exceed 6".		
Notes Calculated Structure structural adequacy design criteria ar responsibility of the ensure the compc application, and to ve Lumber	d Designs is responsible on of this component based d loadings shown. It customer and/or the contr ustability of the i rifly the dimensions and load	ly of the on the actor to thended ds. 3. Dama chem thended appro 3. Dama	icals ng & Installati eams must not be c to manufacture ding installation ing details, beam wals ged Beams must no	ON ut or drilled ar's product information requirements, multi-ply strength values, and code ot be used	6. For flat roofs prov ponding	vide proper drainage to	prevent	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 R Fayetteville, NC USA 28314 910-864-TRUS	pad, Suite #639
1. Dry service cond 2. LVL not to be tre	itions, unless noted otherwis ated with fire retardant or c	se 4. Desig 5. Provio latera	n assumes top edge de lateral support I displacement and	e is laterally restrained at bearing points to avoid rotation	This design is	valid until 3/30/2024	1		CO	тесн