is	Design	Client: Project Addres	-	Elev. C		Job	out by:	7/23/2021 Christine S Magnolia-I	-			Page 1 o
3M1 K	Kerto-S LVL	1.750	" X 16.00	0" 2-	Ply - P	ASSED	) <sup>Le</sup>	evel: Level				
	4	2	5					3				
		2		1_								
1 Hanger (	THD414)	am		14'10"		-	40	-		2 SF		
												3 1/2
I				14'10"							I	
lember Inf	ormation					Reaction			D lb (Upli	ft)		
Туре:	Girder	Ap	olication:	Floor		Brg	Live	Dea			Wind	Const
Plies: Moisture Cond Deflection LL: Deflection TL:	480 360	Bu	Iding Code: ad Sharing:	ASD IBC/IRC 2015 No Not Checked		1 2	296 298	452 454			0 0	0 0
Importance: Temperature:	Normal Temp <= 100°F											
·	·							Cap. 57%	React D/L lb 4522 / 655		I Ld. Case	Ld. Comb. D+0.75(L+S)
nalysis Res	sults					Hanger 2 - SPF	3.500"	100%	4548 / 658	5206	3 L	D+0.75(L+S)
Analysis Moment Unbraced Shear LL Defl inch	Actual         Lo           15931 ft-lb         7           18237 ft-lb         7           3723 lb         1           0.041 (L/4231)         7'4		t-lb 0.512 (519 t-lb 0.998 (100%) b 0.346 (359 _/480) 0.110 (119	D+0.75(L+ %) D 6) 0.75(L+S)	Uniform L							
TL Defl inch		13/16" 0.481 (	_/360) 0.670 (679	%) D+0.75(L+	S) L	$\frac{1}{2}$						
esign Note	es ies using 3 rows of 10c	Box nails ( 128	x3") at 12" o.c. Ma	aximum end di	istance not	4						
to exceed 6' 2 Refer to last 3 Fill all hange 4 Girders are 5 Top loads m 6 Top must be 7 Bottom brac		or fasteners required on the bottor lly by all plies. laximum of 6'4 7	ired for specified l n edge only. /8" o.c.									
D	Load Type	Locatio	n Trib Width	Side	Dead 0.9	Live 1			/ind 1.6 Cor			
2	Uniform Uniform			Top Near Face	125 PLF 78 PLF	0 PLF 0 PLF		0 PLF 8 PLF	0 PLF 0 PLF	0 PLF 0 PLF		all
<u>.</u>	Uniform			Near Face Far Face	15 PLF	0 PLF 40 PLF		0 PLF	0 PLF 0 PLF	0 PLF		t
, ŀ	Uniform			Тор	130 PLF	0 PLF		0 PLF	0 PLF	0 PLF		
5	Uniform			Тор	251 PLF	0 PLF		0 PLF	0 PLF	0 PLF	A1GE	
	Self Weight				12 PLF							
ructural adequacy of ssign criteria and sponsibility of the cu sure the compone oplication, and to verifi- umber . Dry service conditio	Designs is responsible only of the this component based on the loadings shown. It is the stomer and/or the contractor to nt suitability of the intended the dimensions and loads. ns, unless noted otherwise d with fire retardant or corrosive	<ol> <li>LVL beams must r</li> <li>Refer to many regarding instal fastening details, approvals</li> <li>Damaged Beams</li> <li>Design assumes t</li> </ol>	ot be cut or drilled facturer's product info tation requirements, r beam strength values, ar must not be used up edge is laterally restrain pport at bearing points t	pondin multi-ply id code ed o avoid	ng	roper drainage to p	M 3 N (8	Ianufacturer Metsä Wood 01 Merritt 7 B Iorwalk, CT 06 300) 622-5850 ww.metsawo CC-ES: ESR-3	uilding, 2nd Floo 6851 ) od.com/us	or L	Comtech, Inc. 1001 S. Reilly Road Fayetteville, NC JSA 28314 2010-864-TRUS	4, Suite #639

		CI	ient:	Weaver Hom	es		Da	ate:	7/23/2021				Page 1 of
~				Magnolia-II E				out by:	Christine S	Shivy			
	isDesign	Ac	dress:	Magnolia-I	l Elev. C		Jo	b Name:	Magnolia-I	I Elev. C			
	······································							oject #:					
BM2	Kerto-S LVL	1.7	′50" X	(16.00	0" 2-I	Ply - P	ASSE	)	evel: Level				
									Π				
	2												
				1									
		•	•										$\Box \uparrow$
													M
•	and the second s	-		-	Arra	•			1.				1'4"
-		•	•			· ·		• •					
1 SPF								2 SPF					1 1
/			1	0'9 1/2"					$\rightarrow$				3 1/2"
/			1	0'9 1/2"					$\rightarrow$				
I				001/2					I				
Vembor	nformation						Reaction			D lb (Uplif	(†)		
	Girder		Applicat	ion: F	loor		Brg	Live	Dea		-	Wind	Const
Plies:	2		Design I		ASD		1	3389	120		0	0	0
Moisture Co	ondition: Dry		Building		BC/IRC 2015		2	3389	120	0	0	0	0
Deflection L			Load Sh	-	lo Ist Observational								
Deflection T Importance			Deck:	r	lot Checked								
Temperatur													
							Bearings	5					
							Bearing	-		React D/L lb		Ld. Case	Ld. Comb.
							1 - SPF		88%	1200 / 3389	4589		D+L
Analysis F	Results						2 - SPF	3.500	88%	1200 / 3389	4589		D+L
Analysis	Actual Lo	cation Al	lowed	Capacity	Comb.	Case	]						
Moment		5'4 3/4" 34		0.330 (33%		L							
Unbraced		5'4 3/4" 11		0.970 (97%		L							
Shear		'6 5/8" 11 3'4 3/4" 0 '		0.367 (37%) 0.330 (33%)		L							
				) 0.330 (33%		L							
Design N				/ (	,		ſ						
1 Fasten a	II plies using 3 rows of 10c	Box nails	(.128x3") a	at 12" o.c. Ma	ximum end di	stance not	1						
to excee 2 Refer to	d 6". last page of calculations fo	or fasteners	required f	or specified la	hads								
	are designed to be support			•									
	ed at bearings. raced at bearings.												
	lenderness ratio based on	single ply	width.										
ID	Load Type	Lo	cation	Trib Width	Side	Dead 0.9	Live 1	Snow	1.15 V	/ind 1.6 Cor	st. 1.25	Comment	ts
1	Uniform				Far Face	89 PLF	267 PLF	- (	0 PLF	0 PLF	0 PLF	F4	
2	Uniform				Near Face	121 PLF	361 PLF	- (	0 PLF	0 PLF	0 PLF	F2	
	Self Weight					12 PLF							
Notes		chemicals			6. For fla	it roofs provide pr	oper drainage to	prevent	lanufacturer	Info		Comtech, Inc. 001 S. Reilly Road	. Suite #639
Calculated Structu structural adequa	red Designs is responsible only of the cy of this component based on the	1. LVL beams	& Installations must not be cu		pondin	g		N	/letsä Wood 01 Merritt 7 B	uilding, 2nd Floo	, I	ayetteville, NC ISA	,
design criteria responsibility of th	and loadings shown. It is the e customer and/or the contractor to ponent suitability of the intended	<ol> <li>Refer to regarding</li> </ol>	manufacture installation	's product infor requirements, m	ulti-ply			N	lorwalk, CT 0	6851	2	8314 10-864-TRUS	
application, and to	ponent suitability of the intended verify the dimensions and loads.	fastening approvals	details, beam s Beams must no	strength values, and	1 code			W	800) 622-5850	od.com/us	Γ	-	
1. Dry service con 2. LVL pot to be	nditions, unless noted otherwise treated with fire retardant or corrosive	<ol> <li>Design ass</li> <li>Provide la</li> </ol>	sumes top edge teral support a	is laterally restraine t bearing points to	d avoid			10	CC-ES: ESR-	3633		leon	птесн
		lateral disp	lacement and n	otation		design is valid	until 1/8/2023						
ersion 20.20.0	02 Powered by iStruct™										0	SD SD	

<b>Í</b> i	isDesign	Client: Weaver Homes Project: Magnolia-II Elev. C Address: Magnolia-II Elev. C			7/23/2021 Christine Shivy e: Magnolia-II Elev. C	Page 1 of
GDH	Kerto-S LVL	1.750" X 11.875" 2	-Ply - P	Project #	Level: Level	
		1	)			··· M 1
1 SPF E		Contraction of the second		The C	2 SPF	End Grain
(		16'10				
I		16'10	)"			1
ember l	nformation			Reactions LIN	PATTERNED lb (Uplif	+)
ype:	Girder	Application: Floor		Brg Liv	•	
lies:	2	Design Method: ASD			0 2098 333	7 0 0
	ondition: Dry	Building Code: IBC/IRC 201	15	2	0 2098 333	7 0 0
eflection L eflection T		Load Sharing: No Deck: Not Checke	h			
nportance:			4			
emperature	e: Temp <= 100°F					
				Bearings		
				Bearing Lengt 1 - SPF 3.500'	·	Total Ld. Case Ld. Comb. 2434 L D+S
				End 5.500	23% 2096/337	2434 L D+3
nalysis R	Results			Grain		
nalysis	Actual Location	Allowed Capacity Comb.	Case	2 - SPF 3.500' End	23% 2098 / 337	2434 L D+S
loment	8354 ft-lb 8'5"		Uniform	Grain		
Inbraced	9694 ft-lb 8'5"	9704 ft-lb 0.999 D+S (100%)	L			
Shear	1794 lb 1'2 5/8"	7980 lb 0.225 (22%) D	Uniform			
L Defl inc	h 0.070 (L/2809) 8'5 1/16"	0.409 (L/480) 0.170 (17%) S	L			
L Defl inc	h 0.506 (L/388) 8'5 1/16"	0.546 (L/360) 0.930 (93%) D+S	L			
esign No	otes					
Fasten al		ails (.128x3") at 12" o.c. Maximum end	distance not			
	last page of calculations for faster	ners required for specified loads.				
	are designed to be supported on the	с,				
•	s must be supported equally by al t be laterally braced at a maximun	•				
Bottom b	raced at bearings.					
Lateral sl	lenderness ratio based on single   Load Type	Location Trib Width Side	Dead 0.9	Live 1 Sn	ow 1.15 Wind 1.6 Con	st. 1.25 Comments
	Uniform	Top	200 PLF	0 PLF	0 PLF 0 PLF	0 PLF Exterior Loads
2	Uniform	Тор	40 PLF	0 PLF	40 PLF 0 PLF	0 PLF 2'-0" Gable End
	Self Weight	iop	40 T LT 9 PLF	0.2		
	ee toigin					
otes	chem			oper drainage to prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639
Iculated Structur uctural adequad sign criteria a sponsibility of th sure the comp	cy of this component based on the and loadings shown. It is the ne customer and/or the contractor to ponent suitability of the intended	ing & Installation por beams must not be out or drilled r to manufacturer's product information rifing installation requirements, multi-ply ning details, beam strength values, and code ovals	ding		Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us	Fayetteville, NC
umber	3. Dama	aged Beams must not be used gn assumes top edge is laterally restrained			ICC-ES: ESR-3633	