

	Client:	Regency Homes		D)ate:	12/9/2021	Page 2 of 2
	Project:			Ir	nput by:	Lenny Norris	
isDesign	Address:	James Elev. C		J	ob Name:	JAMES II Plan	
				Р	roject #:		
BM1 Kerto-SU	// 1 750"	X 14 000"	3-Plv	PASSE		evel: Level	
		A 14.000	5-i iy -	TAUCE			
••••	• •	• •	• •	•	•	• •	· · ·
	• •		•				
							$\overline{\nabla}$ MM $ ^{1'2''}$
	• •	• •	• •	•	•	• •	
1 SPF End Grain						2	2 SPF End Grain
ļ ,			410 4 /01				
		Į	401/2				5 1/4
1		14	4'6 1/2"				Î
Multi-Ply Analysis							
Fasten all plies using 3 row	s of 10d Box nails	(.128x3") at 12"	o.c Nail fro	m both side	s. Maxir	num end distand	e not to exceed
6"							
Capacity	0.0 %						
Load	0.0 PLF						
Yield Limit per Foot	245.6 PLF						
Yield Limit per Fastener	81.9 lb.						
Yield Mode	IV 1.1.(0)						
Edge Distance Min, End Distance	1 1/2" 2"						
I oad Combination	3						
Duration Factor	1.00						
Notes	chemicals		6. For flat roofs prov	vide proper drainage to	prevent	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Road, Suite #639
Calculated Structured Designs is responsible only	of the Handling & Installat	ion	ponding		Ν	Metsä Wood	Fayetteville, NC USA
design criteria and loadings shown. It is responsibility of the customer and/or the cost	the 2. Refer to manufactu	er's product information			i i i i i i i i i i i i i i i i i i i	Norwalk, CT 06851	28314 910-864-TRUS
ensure the component suitability of the inter application, and to verify the dimensions and loade	ended fastening details, beam	strength values, and code			(800) 622-5850	
Lumber	approvais 3. Damaged Beams must i	not be used			<u>v</u> I	CC-ES: ESR-3633	
1. Dry service conditions, unless noted otherwise 2. LVL not to be treated with fire retardant or con-	5. Provide lateral support lateral displacement and	at bearing points to avoid rotation	This designs '				COMTECH
			i nis desidn is '	vallu until 2/26/202	.J		

	/	Client:	Regency Horr	ies		Da	ate:	12/9/2021				Page 1 of 2
1		Project:				Inp	out by:	Lenny Nor	ris			
	suesign	Address:	James Elev	и. С		Jo	b Name	: JAMES II	Plan			
		4 750"	V 44 07				oject #.	Level: Level				
GDH	Kerto-5 LVL	1.750	X 11.8/3	5° 3-PI	y - P/	ASSEL	,					
		2										
				1	•			•				
	and the second second	-		1175	, saul	-	100	With	-	-		11 7/8"
	• 14944 • · · · ·				•	1000		163 - 1		•	•	
1 SPF										2 SPF	:	
/				17'							\neg	5 1/4"
/				17'							\rightarrow	
Member I	nformation					Reaction	s UNI	PATTERNI	D lb (Uplif	t)		
Туре:	Girder	Applic	ation: Fl	oor		Brg	Live	e Dea	id Snov	v V	Vind	Const
Plies:	3	Desig	n Method: A	SD		1	C) 215	58 340	0	0	0
Moisture Co	ndition: Dry	Buildi	ng Code: IB	C 2012		2	C) 215	58 340	Э	0	0
Deflection L	L: 480	Load	Sharing: Ye	es S								
Importance:	L. Soo Normal	Deck.	IN	of Checked								
Temperature	e: Temp <= 100°F											
	·					Bearings						
						Bearing	Length	n Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
						1 - SPF	3.500"	32%	2158 / 340	2498	L	D+S
Analysis D	loculte					2 - SPF	3.500"	32%	2158 / 340	2498	L	D+S
Analysis	Actual Loca	ation Allowed	Capacity	Comb. C	ase							
Moment	8683 ft-lb	8'6" 27954 ft-lb	0.311 (31%)	D U	Iniform							
Unbraced	10051 ft-lb	8'6" 10056 ft-lb	1.000	D+S L								
	40.40 %		(100%)									
Shear	1848 ID 12	2 5/8" 11970 ID	0.154 (15%)		niform							
TL Defl incl	h 0.356 ($1/557$) 8'6	1/16" 0.551 (L/4	60) 0.120 (12%)) D+S I								
				, , , , , , , , , , , , , , , , , , , ,								
1 Fasten al	I plies using 2 rows of 10d l	Box nails (.128x3'	') at 12" o.c. Max	imum end distan	ce not							
to exceed	16".											
2 Refer to a 3 Girders a	ast page of calculations for re designed to be supporte	d on the bottom e	d for specified lo dae only	ads.								
4 Top loads	s must be supported equally	/ by all plies.	ago only.									
5 Top must	be laterally braced at a ma	ximum of 14'10 1	/8" o.c.									
7 Lateral sl	enderness ratio based on s	ingle ply width.										
ID	Load Type	Location	Trib Width	Side De	ad 0.9	Live 1	Sno	w 1.15 V	Vind 1.6 Con	st. 1.25	Commen	ts
1	Uniform			Top 2	00 PLF	0 PLF		0 PLF	0 PLF	0 PLF	Wall	
2	Uniform			Тор	40 PLF	0 PLF		40 PLF	0 PLF	0 PLF	2'-0" Roof	Load
	Self Weight				14 PLF							
Notos		chemicals		6 For flat roof	s provide pr	oper drainage to	prevent	Manufacturer	Info	Cor	ntech, Inc.	
Calculated Structure	red Designs is responsible only of the	Handling & Installa	tion	ponding		, -: -:amage to		Metsä Wood		Fay	i S. Relly Road etteville, NC A	a, Suite #639
design criteria a responsibility of the	and loadings shown. It is the e customer and/or the contractor to	 LVL beams must not be 2. Refer to manufact regarding installation 	e cut or drilled urer's product inforn n requirements mu	nation Iti-ply				301 Merritt 7 E Norwalk, CT 0	suilaing, 2nd Floo 6851	r 283 910	14 -864-TRUS	
ensure the comp application, and to	oonent suitability of the intended verify the dimensions and loads.	fastening details, bear approvals	m strength values, and	code				(800) 622-585 www.metsawo	0 iod.com/us			
Lumber 1. Dry service con	ditions, unless noted otherwise	 Damaged Beams must Design assumes top er Provide lateral surgers 	not be used dge is laterally restrained	avoid				ICC-ES: ESR-	3633			
2. LVL not to be tr	reated with fire retardant or corrosive	lateral displacement ar	nd rotation	This desig	n is valid u	until 2/26/2023	3				con	HIECH
Version 20.20.04	4 Powered by iStruct™											

	/		Client:	Regency Homes		Date	e:	12/9/2021		Page 2 of 2
1	1-00-1-0-		Project:			Inpu	it by:	Lenny Norris		
	isvesign		Address:	James Elev. C		Job	Name:	JAMES II Plan		
						Proje	ect #:			
GDH	Kerto-S	LVL	1.750"	X 11.875"	3-Ply ·	- PASSED		evel: Level		
									≡	
•	• •	•	• •	• •	• •	• •	•	• • •		\overline{M}
									$\overline{\mathbf{v}}$	11 7/8"
	• •	•	• •	• •	• •	• •	•	• • •		
									2 5PF	
					17'					5 1/4"
/					17'				/	
Multi-Ply	/ Analysis									
Fasten all	plies using 2 i	rows of 1	10d Box nails	(.128x3") at 12"	o.c Nail fro	om both sides.	Maxir	num end distance not	to exceed	
6"										
Capacity		0.0 %	6 Р F							
Yield Limit pe	er Foot	163.	7 PLF							
Yield Limit pe	er Fastener	81.9	lb.							
Yield Mode	20	IV 1 1/2)"							
Min. End Dist	tance	3"								
Load Combin	nation									
Duration Fac	tor	1.00								
							<u> </u>			
Notes		_	chemicals		6. For flat roofs pro	wide proper drainage to pre	event	Manufacturer Info	Comtech, Inc. 1001 S. Reilly Ros	ad, Suite #639
Calculated Struct structural adequa	tured Designs is responsible acy of this component ba	e only of the H used on the 1	andling & Installa . LVL beams must not be	t ion e cut or drilled	Ponding		1	Metsä Wood 801 Merritt 7 Building, 2nd Floor	Fayetteville, NC USA	
design criteria responsibility of ensure the cor	and loadings shown. the customer and/or the of moonent suitability of the	It is the 2 contractor to	. Refer to manufact regarding installation	urer's product information n requirements, multi-ply			1	Norwalk, CT 06851 800) 622-5850	28314 910-864-TRUS	
application, and to	o verify the dimensions and	loads.	approvals Damaged Beams must	not be used			7	www.metsawood.com/us	-	
1. Dry service co	onditions, unless noted othe	erwise 5	. Design assumes top ed . Provide lateral suppor	dge is laterally restrained rt at bearing points to avoid				UU-ED: EDR-3033	Icor	ntecul
 ∠. LVL not to be 	ueated with fire retardant	ui corrosive	lateral displacement ar	nd rotation	This design is	valid until 2/26/2023				meen



CSD 8

			Client:	Regency Homes		Date:	12/9/2021		Page 2 of 2
1 isl	Design		Project: Address:	James Elev. C		Input by Job Nan	: Lenny Norris ne: JAMES II Plan		
						Project #	#: The web the web		
GDH-3	Kerto-S	LVL	1.750	" X 11.875	5" 2-Ply	- PASSED	Level. Level		
•	•	•	•	•	•	• •	• •		
								1/2"	
.	•	•	•	•	•	• •	••+	<u> </u>	
1 SPF En	d Grain					2 5	SPF End Grain		
 				8'10"					3 1/2"
 				8'10"					
Multi-Ply Ar	alysis								
Fasten all plie	es using 2 row	/s of 10d	Box nails	(.128x3") at 12"	' o.c Maximu	m end distance r	not to exceed 6		
Load Vield Limit per Eo	ot	0.0 PLF	F						
Yield Limit per Fa	stener	81.9 lb.	I						
Edge Distance		1 1/2"							
Min. End Distance Load Combination	9 1	3"							
Duration Factor		1.00							
Notes		chen	nicals		6. For flat roofs provid	e proper drainage to prevent	Manufacturer Info		Comtech, Inc. 1001 S. Reilly Road, Suite #639
Calculated Structured D structural adequacy of design criteria and	esigns is responsible only this component based of loadings shown. It is	of the Handl	beams must not be o	ion cut or drilled er's product information	ponding		Metsä Wood 301 Merritt 7 Buildin	ng, 2nd Floor	Fayetteville, NC USA 28314
responsibility of the cur ensure the componer application, and to verify	stomer and/or the contract the suitability of the int the dimensions and loads	ctor to rega tended faste	ning details, beam	requirements, multi-ply strength values, and code			(800) 622-5850 (800) metsawood.co	om/us	910-864-TRUS
1. Dry service condition	ns, unless noted otherwise	3. Dam 4. Desi 5. Prov	aged Beams must n gn assumes top edg ide lateral support	ot be used le is laterally restrained at bearing points to avoid			ICC-ES: ESR-3633		Comtech
2. LVL HOLIO DE LIEBLE	a warning relardant of Col	later	al displacement and	rotation	This design is va	alid until 2/26/2023			



CSD 8

	Client:	Regency Homes	Date:	12/9/2021	Page 2 of 2
*	Project:		Input by:	Lenny Norris	
isDesign	Address:	James Elev. C	Job Nam	e: JAMES II Plan	
			Project #		
Master Window Header	Kerto-S LVL	1.750" X 9.250"	2-Ply - PASSED	Level: Level	
				_	
•	•	• •	• •	N	
				11	
•	•	• •	• •	Ψ.Ψ.	
				$\exists - \downarrow$	
1 SPF End Grain			2 SPF End Grain	l.	
1	e	5'1"			3 1/2"
/	6	5'1"		-1	
Multi-Ply Analysis					
Fasten all plies using 2 rows of	of 10d Box nails (.	128x3") at 12" o.c Ma	aximum end distance n	ot to exceed 6"	
Capacity 0	0.0 %				
Yield Limit per Foot 1	63.7 PLF				
Yield Limit per Fastener 8	31.9 lb.				
Yield Mode I' Edge Distance 1	V □1/2"				
Min. End Distance 3)" }"				
Load Combination					
Duration Factor 1	.00				
					Comitaeh Ino
Notes	chemicals	6. For flat r ponding	oofs provide proper drainage to prevent	Manufacturer Info	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	 in an unity or instantation i. LVL beams must not be cut i. Defer 	or drilled		301 Merritt 7 Building, 2nd Floor	USA 28314
responsibility of the customer and/or the contractor the ensure the component suitability of the intende	 2. Refer to manufacturer regarding installation d fastening details beam et 	s product information requirements, multi-ply rength values, and code		Norwalk, CT 06851 (800) 622-5850	910-864-TRUS
application, and to verify the dimensions and loads.	approvals 3. Damaged Beams must not	be used		www.metsawood.com/us ICC-ES: ESR-3633	
 Dry service conditions, unless noted otherwise LVL not to be treated with fire retardant or corresiv 	 Design assumes top edge i Provide lateral support at 	s laterally restrained bearing points to avoid			соттесн
EVENING BO REARD WITHING TELANDARE OF CONUSIN	 lateral displacement and ro 	This de	sign is valid until 2/26/2023		



CSD 8

	Client:	Regency Homes	Date:	12/9/2021	Page 2 of 2
2	Project:		Input by:	Lenny Norris	-
isDesign	Address:	James Elev. C	Job Nam	ne: JAMES II Plan	
			Project #	<u>t:</u>	
Dining Window Header	Kerto-S LVL	1.750" X 9.250	2-Ply - PASSED	Level: Level	
2			,		
• •	•	• •	• •	┐.	
				1/2	
				$\frac{1}{\Sigma}$	∧ ∧ 9 1/4
•	•	• •	• •	- <u>+</u> ¥	
1 SPF End Grain			2 SPF End Grain		
1		6'1"			3 1/2"
<i> </i>		6'1"		→	
				•	
Multi-Ply Analysis					
Fasten all plies using 2 rows of	of 10d Box nails (128x3") at 12" o.c	Maximum end distance r	not to exceed 6"	
Capacity 0	0.0 %				
Load C	0.0 PLF				
Yield Limit per Foot 1	63.7 PLF				
Yield Limit per Fastener	31.9 lb.				
Edge Distance	v 1/2"				
Min. End Distance	3"				
Load Combination					
Duration Factor 1	.00				
				Manufacturer Info	Comtech, Inc.
Notes Calculated Structured Designs is responsible only of th	chemicals e Handling & Installati	6. For fl pondi	at roofs provide proper drainage to prevent	Metsä Wood	1001 S. Reilly Road, Suite #639 Fayetteville, NC
structural adequacy of this component based on the design criteria and loadings shown. It is the	e 1. LVL beams must not be c	ut or drilled		301 Merritt 7 Building, 2nd Floor	USA 28314
responsibility of the customer and/or the contractor t ensure the component suitability of the intender	o regarding installation fastening details been	requirements, multi-ply strength values and code		Norwalk, CT 06851 (800) 622-5850	910-864-TRUS
application, and to verify the dimensions and loads.	approvals 3. Damaged Beams must n	be used		www.metsawood.com/us	
Dry service conditions, unless noted otherwise Ul not to be tracted with fire releaded as a service.	 Design assumes top edge Provide lateral support 	e is laterally restrained at bearing points to avoid		100-20. 2011-3033	Comtech
2. LVL HOL TO BE TRATED WITH HIE RETARDANT OF COTFOSIV	 lateral displacement and 	rotation This	design is valid until 2/26/2023		

	Client: Regency Homes	Date:	12/9/2021	Page 1 of 2
	Project:	Input by:	Lenny Norris	
isDesign	Address: James Elev. C	Job Name	: JAMES II Plan	
		Project #:		
Bedroom 2 Window Header K	erto-S LVL 1.750" X 9.250"	2-Ply - PASSED	Level: Level	
	1			
1 SPF End Grain	· · · ·	2 SPF End Grain]	9 1,
f f	6'1"		7	3 1/2"
, /	6'1"		7	
	01		I	
Member Information		Reactions UNI	PATTERNED Ib (Uplift)	
Type: Girder	Application: Floor	Brg Live	e Dead Snow	Wind Const
Plies: 2	Design Method: ASD	1 0) 1765 1743	0 0
Moisture Condition: Dry	Building Code: IBC 2012	2 0) 1765 1743	0 0
Deflection LL: 480	Load Sharing: No			
Deflection TL: 360	Deck: Not Checked			
Importance: Normal				
Temperature: Temp <= 100°F				
		Bearings		
		Bearing Length	n Cap. React D/L lb	Total Ld. Case Ld. Comb.
		1 - SPF 3.500"	33% 1765 / 1743	3508 L D+S
		End		
Analysis Results			220/ 4705 / 4742	
Analysis Actual Location	Allowed Capacity Comb.	Case Z - SPF 3.500	33% 1765/1743	3508 L D+S
Moment 4561 ft-lb 3' 1/2"	14423 ft-lb 0.316 (32%) D+S	Grain		
Unbraced 4561 ft-lb 3' 1/2"	10944 ft-lb 0.417 (42%) D+S	L		
Shear 2354 lb 5'1"	7943 lb 0.296 (30%) D+S	L		
LL Defl inch 0.036 (L/1874) 3' 1/2"	0.141 (L/480) 0.260 (26%) S	L		
TL Defl inch 0.072 (L/931) 3' 1/2"	0.188 (L/360) 0.390 (39%) D+S	L		
Design Notes 1 Fasten all plies using 2 rows of 10d Box nai to exceed 6".	ls (.128x3") at 12" o.c. Maximum end dista	ince not		
 2 Refer to last page of calculations for fastened 3 Girders are designed to be supported on the 4 Top loads must be supported equally by all 5 Top braced at bearings. 6 Bottom braced at bearings. 7 Lateral standards areas ratio based on single placed 	ers required for specified loads. e bottom edge only. plies.			
ID Load Type	ocation Trib Width Side D		w 1 15 Wind 1 6 Const	1.25 Comments
I Uniform	Гор		UPLF (JPLF
Self Weight		7 PLF		
Nata		of provide proper designer to an a	Manufacturer Info	Comtech, Inc.
Notes chemic Calculated Structured Designs is responsible only of the Handlin	ars 6. For flat ro g & Installation ponding	ors provide proper drainage to prevent	Metsä Wood	1001 S. Reilly Road, Suite #639 Fayetteville, NC
structural adequacy of this component based on the 1. LVL be design criteria and loadings shown. It is the 2. Refer	ams must not be cut or drilled to manufacturer's product information		301 Merritt 7 Building, 2nd Floor Norwalk CT 06851	USA 28314 010 864 TRUC
responsibility of the customer and/or the contractor to ensure the component suitability of the intended reglarding and humanity in the intended	ng installation requirements, multi-ply ng details, beam strength values, and code		(800) 622-5850	910-864-TRUS
apprication, and to verify the dimensions and loads. approv. Lumber 3. Damag	als ed Beams must not be used		www.metsawood.com/us ICC-ES: ESR-3633	
Dry service conditions, unless noted otherwise LVL not to be treated with fire retardant or corrosive A. Design Provide Design De	assumes top edge is laterally restrained I ateral support at bearing points to avoid isolacement and rotation			соттесн
iaterai (This des	agn is valid until 2/26/2023		
arsion 20.20.044 Powered by iStruct™				

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CSD I

Lie Destina	Client: Regency Hor Project:	mes	Date: Input by:	12/9/2021 Lenny Norris	Page 2 of 2
	Address: James Ele	v. C	Job Nam Project #	e: JAMES II Plan	
Bedroom 2 Window Header	Kerto-S LVL 1.75	0" X 9.250"	2-Ply - PASSED	Level: Level	
• •	• •	•	• •	/2"	\overline{M}
•	• •	•	• •	<u> </u>	9 1/4
1 SPF End Grain			2 SPF End Grain	∃	
	6'1"			7	3 1/2"
	6.1.			I	
Multi-Ply Analysis					
Fasten all plies using 2 rows of 1 Capacity 0.0 %	0d Box nails (.128x3") at	: 12" o.c Maxi]	mum end distance n	ot to exceed 6"	
Load 0.0 P Yield Limit per Foot 163.7	PLF 7 PLF				
Yield Limit per Fastener 81.9	lb.				
Edge Distance 1 1/2					
Min. End Distance 3"					
Duration Factor 1.00					
Notes	chemicals	6. For flat roofs	provide proper drainage to prevent	Manufacturer Info	Comtech, Inc.
Calculated Structured Designs is responsible only of the H structural adequacy of this component based on the responsibility of the customer and/end the contractor to responsibility of the customer and/end the contractor to	andling & Installation LVL beams must not be cut or drilled Refer to manufacturer's product informandiate installation	ponding		Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851	- 1001 5. Keilly Köää, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS
ensure the component suitability of the intended application, and to verify the dimensions and loads.	regaroing installation requirements, m fastening details, beam strength values, an approvals Damaged Beams must not be used	d code		(800) 622-5850 <u>www.metsawood.com/us</u> ICC-FS: FSR-3633	
1. Dry service conditions, unless noted otherwise 4. 2. LVL not to be treated with fire retardant or corrosive 5.	Design assumes top edge is laterally restraine Provide lateral support at bearing points to lateral displacement and rotation	ad o avoid This design	is valid until 2/26/2023		соттесн



	Client:	Regency Homes	Dat	te:	12/9/2021		Page 2 of 2
	Project:		Inp	ut by:	Lenny Norris		
isDesign	Address:	James Elev. C	Job	Name:	JAMES II Plan		
			Pro	ject #:			
Family Window Header	Kerto-S I VI	1 750" X 11 8	75" 3_PIV - PASSI		evel: Level		
		1.750 X 11.07	15 5-1 ly - 1 A001				
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	•	• •	• •	•	•	• • —	<u>+ +</u> /₩₩\ L
1 SPE End Grain							
1		11'9"				·	5 1/4"
/ <i>/</i>		11/0	1				*
		119					I
Multi-Ply Analysis							
Fasten all plies using 2 rows of	of 10d Box hails (.128x3") at 12" o.c	Nail from both sides.	Maxii	mum end distai	nce not to excee	b
6"							
Capacity 0	.0 %						
Load C	.0 PLF						
Vield Limit per Foot	63.7 PLF						
Yield Mode	V						
Edge Distance 1	1/2"						
Min. End Distance 3	,"						
Load Combination							
Duration Factor 1	.00						
				<u> </u>	Monufactures Inf-	Comin	ch Inc
Notes	chemicals	6. For	flat roofs provide proper drainage to p ding	prevent		1001 S	. Reilly Road, Suite #639
calculated Structured Designs is responsible only of the structural adequacy of this component based on the	e nanunny & Installâti e 1. LVL beams must not be d	ut or drilled			ivietsa vvood 301 Merritt 7 Buildina.:	2nd Floor USA	
oesign criteria and loadings shown. It is the responsibility of the customer and/or the contractor t	e 2. Refer to manufacture regarding installation	er's product information requirements, multi-ply			Norwalk, CT 06851	28314 910-86	4-TRUS
application, and to verify the dimensions and loads.	 fastening details, beam approvals 	strength values, and code			www.metsawood.com/	us	
Lumber	 Damaged Beams must need to be a summer of the second second	ot be used is laterally restrained		i	ICC-ES: ESR-3633		
2. LVL not to be treated with fire retardant or corrosiv	 Provide lateral support lateral displacement and 	at bearing points to avoid rotation Thi	s design is valid until 2/26/2023				соттесн
			• · · ·				