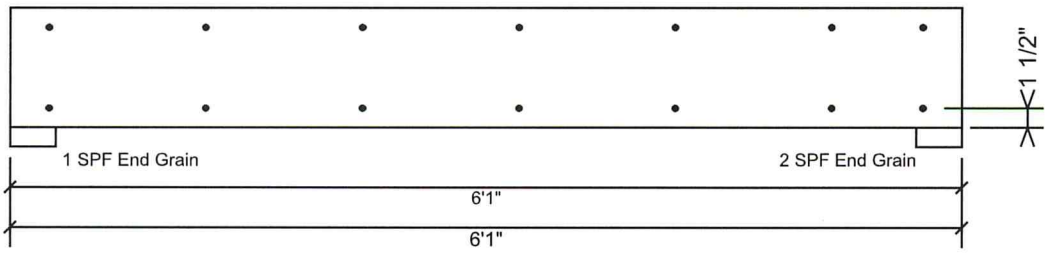
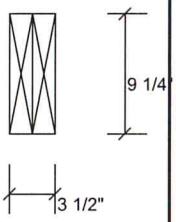
BM4 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	0.0 %
Load	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"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

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
2. LVL not to be treated with fire retardant or corrosive 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 lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

Metsä Wood
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(800) 622-5850
www.metsawood.com/us
ICC-ES: ESR-3633

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
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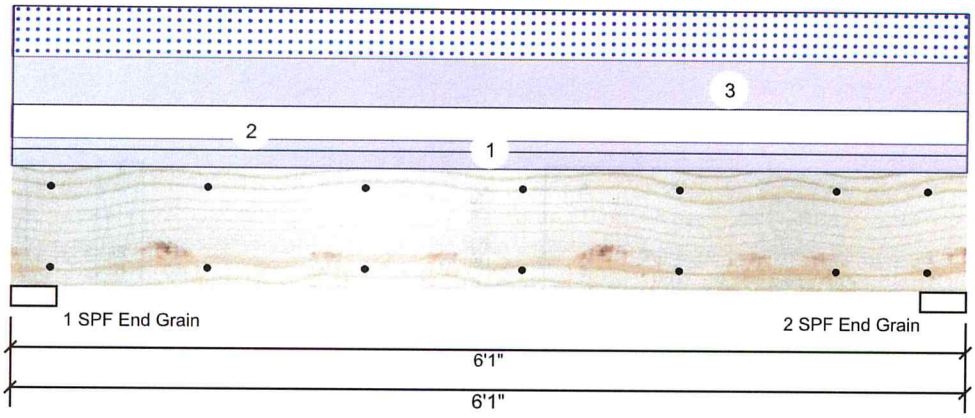
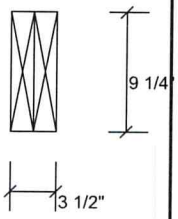
28314
910-864-TRUS

BM4 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	712	1670	1046	0	0
2	712	1670	1046	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	28%	1670 / 1319	2989	L	D+0.75(L+S)
2 - SPF End Grain	3.500"	28%	1670 / 1319	2989	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3887 ft-lb	3' 1/2"	14423 ft-lb	0.269 (27%)	D+0.75(L+S)	L
Unbraced	3887 ft-lb	3' 1/2"	10944 ft-lb	0.355 (36%)	D+0.75(L+S)	L
Shear	2006 lb	1'	7943 lb	0.253 (25%)	D+0.75(L+S)	L
LL Defl inch	0.027 (L/2477)	3' 1/2"	0.141 (L/480)	0.190 (19%)	0.75(L+S)	L
TL Defl inch	0.062 (L/1093)	3' 1/2"	0.188 (L/360)	0.330 (33%)	D+0.75(L+S)	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
2	Uniform			Top	78 PLF	234 PLF	0 PLF	0 PLF	0 PLF	F01
3	Uniform			Top	344 PLF	0 PLF	344 PLF	0 PLF	0 PLF	A3
	Self Weight				7 PLF					

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive 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 lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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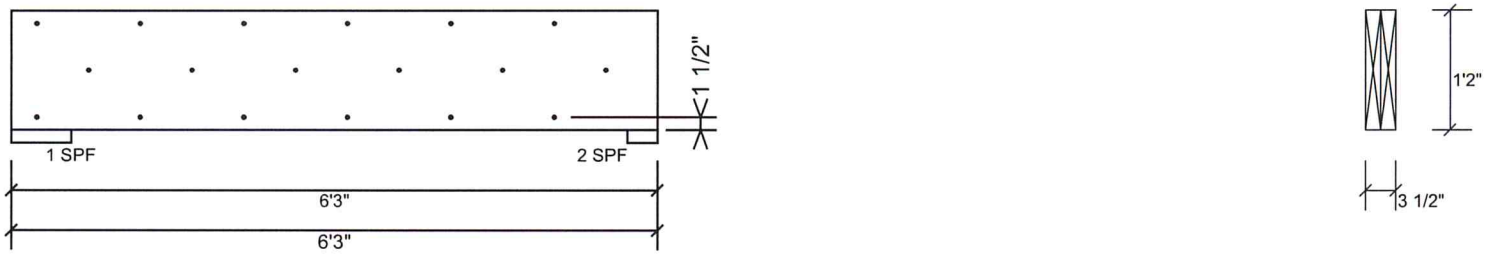
BM3 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance 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
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

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

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2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

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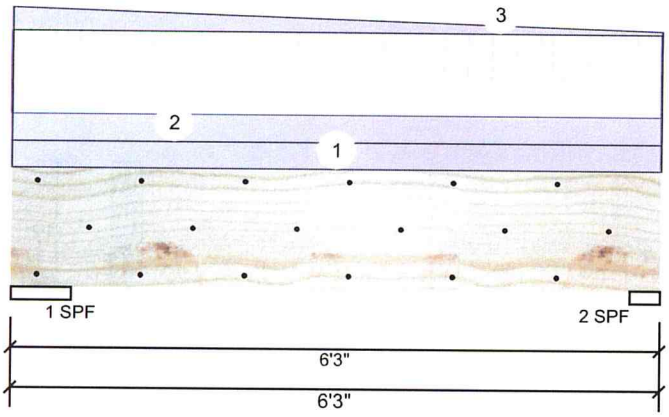
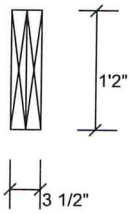
Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	1213	1075	0	0	0
2	1105	883	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	7.000"	22%	1075 / 1213	2289	L	D+L
2 - SPF	3.500"	38%	883 / 1105	1989	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2580 ft-lb	3'2 15/16"	26999 ft-lb	0.096 (10%)	D+L	L
Unbraced	2580 ft-lb	3'2 15/16"	17730 ft-lb	0.146 (15%)	D+L	L
Shear	1080 lb	4'10 1/4"	10453 lb	0.103 (10%)	D+L	L
LL Defl inch	0.008 (L/8178)	3'3 1/4"	0.138 (L/480)	0.060 (6%)	L	L
TL Defl inch	0.015 (L/4446)	3'3 1/8"	0.183 (L/360)	0.080 (8%)	D+L	L

Design Notes

1 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
2	Uniform			Top	124 PLF	371 PLF	0 PLF	0 PLF	0 PLF	F02G
3	Tapered Start	0-0-0		Top	102 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Gable
	End	6-3-0			15 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				11 PLF					

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive 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
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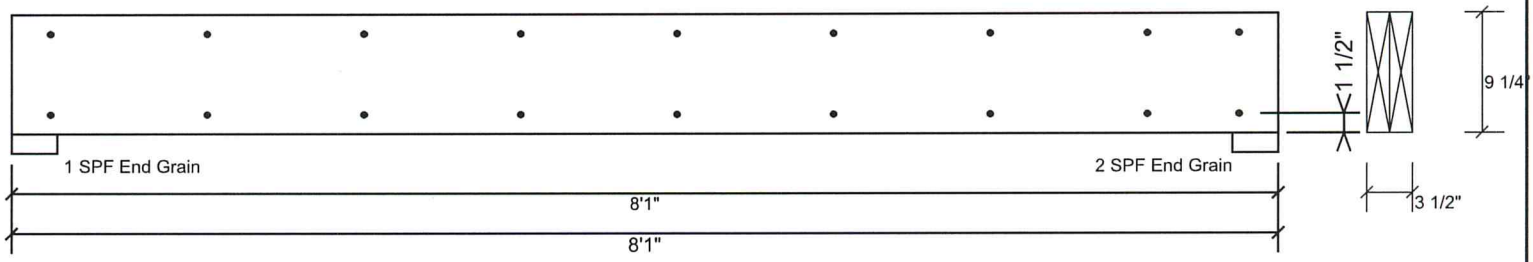
BM2 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	0.0 %
Load	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"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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Lumber

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2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

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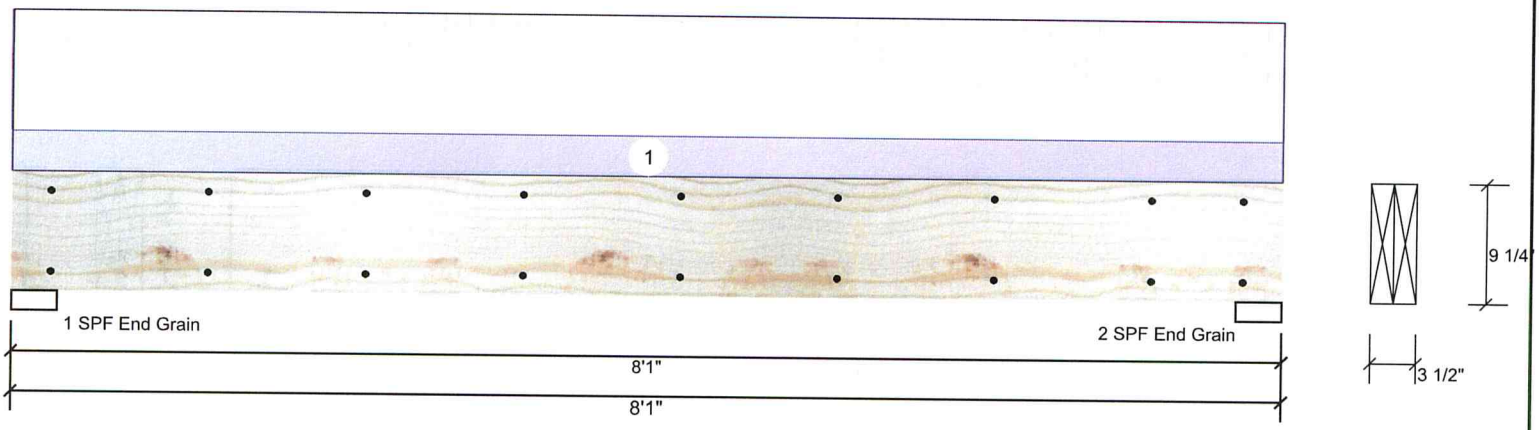

Member Information

Type:	Girder
Plies:	2
Moisture Condition:	Dry
Deflection LL:	480
Deflection TL:	360
Importance:	Normal
Temperature:	Temp <= 100°F

Application:	Floor
Design Method:	ASD
Building Code:	IBC/IRC 2015
Load Sharing:	No
Deck:	Not Checked

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	2853	983	0	0	0
2	2853	983	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	36%	983 / 2853	3836	L	D+L
2 - SPF End Grain	3.500"	36%	983 / 2853	3836	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6898 ft-lb	4' 1/2"	12542 ft-lb	0.550 (55%)	D+L	L
Unbraced	6898 ft-lb	4' 1/2"	8820 ft-lb	0.782 (78%)	D+L	L
Shear	2887 lb	7'1"	6907 lb	0.418 (42%)	D+L	L
LL Defl inch	0.135 (L/680)	4' 9/16"	0.191 (L/480)	0.710 (71%)	L	L
TL Defl inch	0.181 (L/506)	4' 9/16"	0.254 (L/360)	0.710 (71%)	D+L	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	236 PLF	706 PLF	0 PLF	0 PLF	0 PLF	F01
	Self Weight				7 PLF					

Notes

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Lumber

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2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

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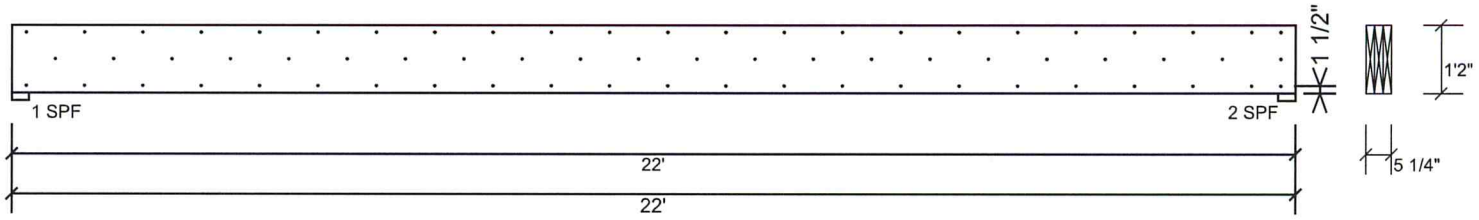
BM1 Kerto-S LVL 1.750" X 14.000" 3-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Nail from both sides. Maximum end distance 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
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

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

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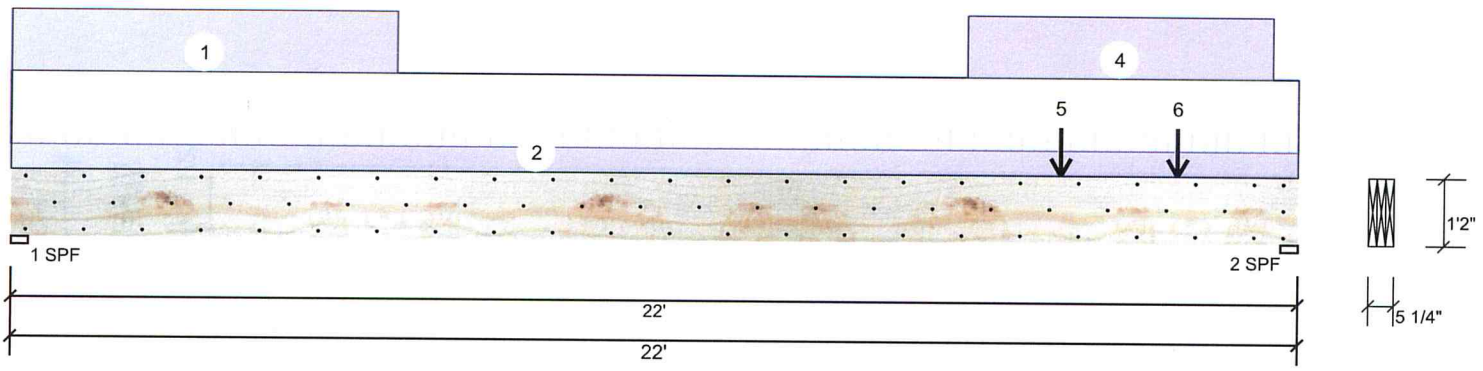

Member Information

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	1551	1653	197	0	0
2	1551	2655	1301	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	41%	1653 / 1551	3204	L	D+L
2 - SPF	3.500"	61%	2655 / 2139	4794	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	16140 ft-lb	11'9 13/16"	42119 ft-lb	0.383 (38%)	D+L	L
Unbraced	16140 ft-lb	11'9 13/16"	16170 ft-lb	0.998 (100%)	D+L	L
Shear	4443 lb	20'7 1/4"	18032 lb	0.246 (25%)	D+0.75(L+S)	L
LL Defl inch	0.297 (L/869)	11' 1/16"	0.539 (L/480)	0.550 (55%)	L	L
TL Defl inch	0.607 (L/426)	11'2 1/2"	0.718 (L/360)	0.840 (84%)	D+L	L

Design Notes

1 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top must be laterally braced at a maximum of 10' o.c.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 6-7-0		Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
2	Uniform			Top	47 PLF	141 PLF	0 PLF	0 PLF	0 PLF	F03
4	Part. Uniform	16-4-0 to 21-6-12		Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
5	Point	17-11-4		Top	749 lb	0 lb	749 lb	0 lb	0 lb	A1
6	Point	19-11-4		Top	749 lb	0 lb	749 lb	0 lb	0 lb	A1
	Self Weight				16 PLF					

Notes

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Lumber

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2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

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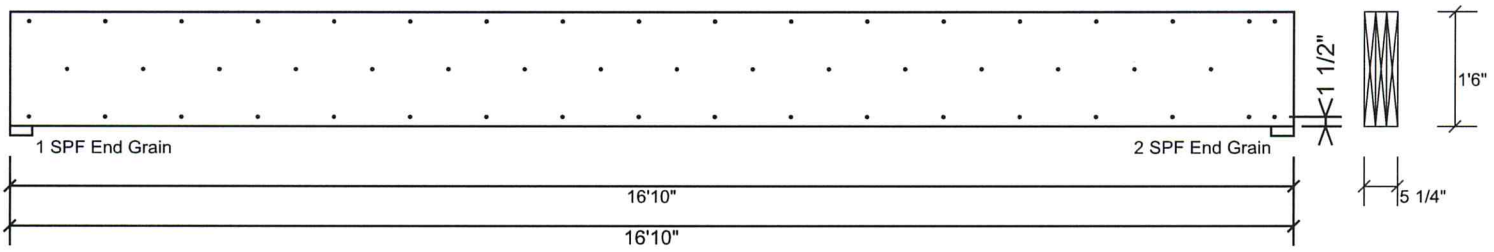
GDH (Side Load) Kerto-S LVL 1.750" X 18.000" 3-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Nail from both sides. Maximum end distance 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
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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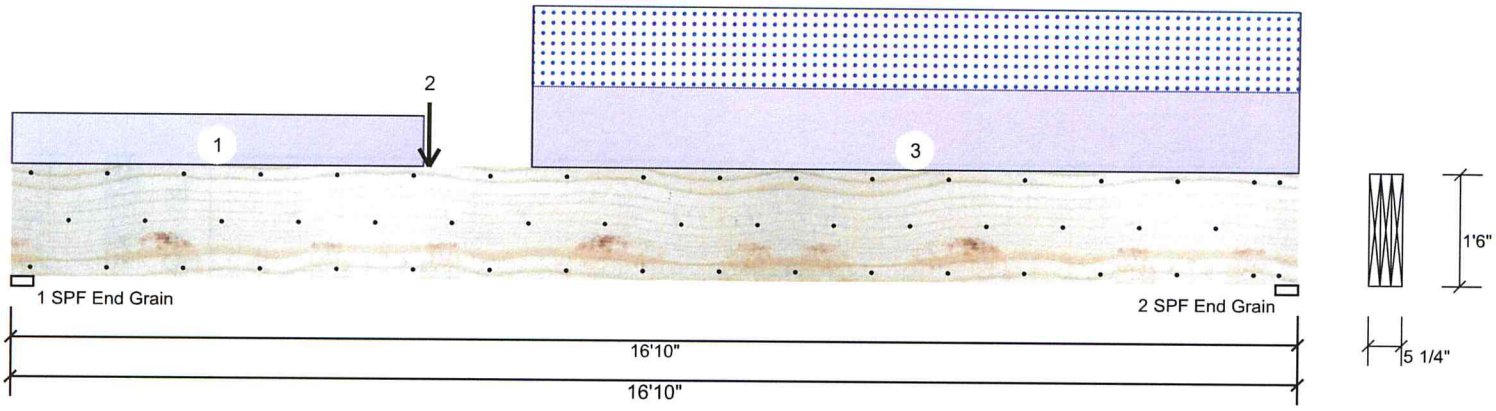
Fort Gratiot, MI 48059
(800) 622-5850
www.metsawood.com/us
ICC-ES: ESR-3633

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

GDH (Side Load) Kerto-S LVL 1.750" X 18.000" 3-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	3901	2698	0	0
2	0	3694	3334	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	41%	3901 / 2698	6599	L	D+S
2 - SPF End Grain	3.500"	44%	3694 / 3334	7028	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	31629 ft-lb	7'4 13/16"	77108 ft-lb	0.410 (41%)	D+S	L
Unbraced	31629 ft-lb	7'4 13/16"	31698 ft-lb	0.998 (100%)	D+S	L
Shear	6176 lb	1'8 5/8"	23184 lb	0.266 (27%)	D+S	L
LL Defl inch	0.155 (L/1269)	8'3 1/8"	0.410 (L/480)	0.380 (38%)	S	L
TL Defl inch	0.335 (L/587)	8'2 7/16"	0.547 (L/360)	0.610 (61%)	D+S	L

Design Notes

1 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top must be laterally braced at a maximum of 6'3 3/8" o.c.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 5-4-8		Top	225 PLF	0 PLF	0 PLF	0 PLF	0 PLF	Wall
2	Point	5-5-6		Top	2397 lb	0 lb	2397 lb	0 lb	0 lb	BM1
3	Part. Uniform	6-9-8 to 16-10-0		Top	362 PLF	0 PLF	362 PLF	0 PLF	0 PLF	B2
	Self Weight				21 PLF					

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
2. LVL not to be treated with fire retardant or corrosive 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 lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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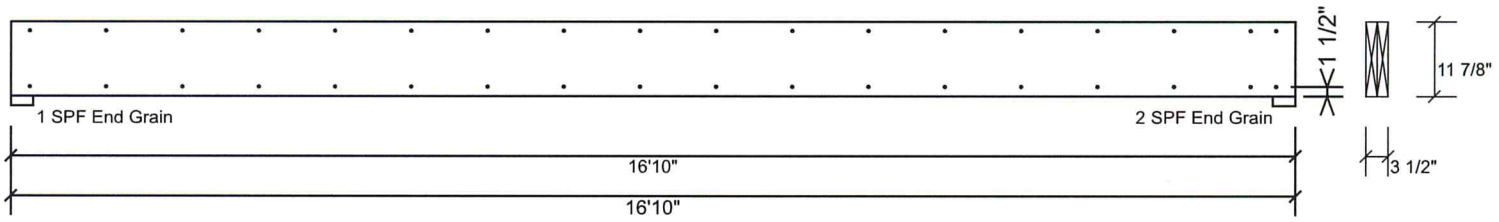
GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	0.0 %
Load	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"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

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
2. LVL not to be treated with fire retardant or corrosive 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 lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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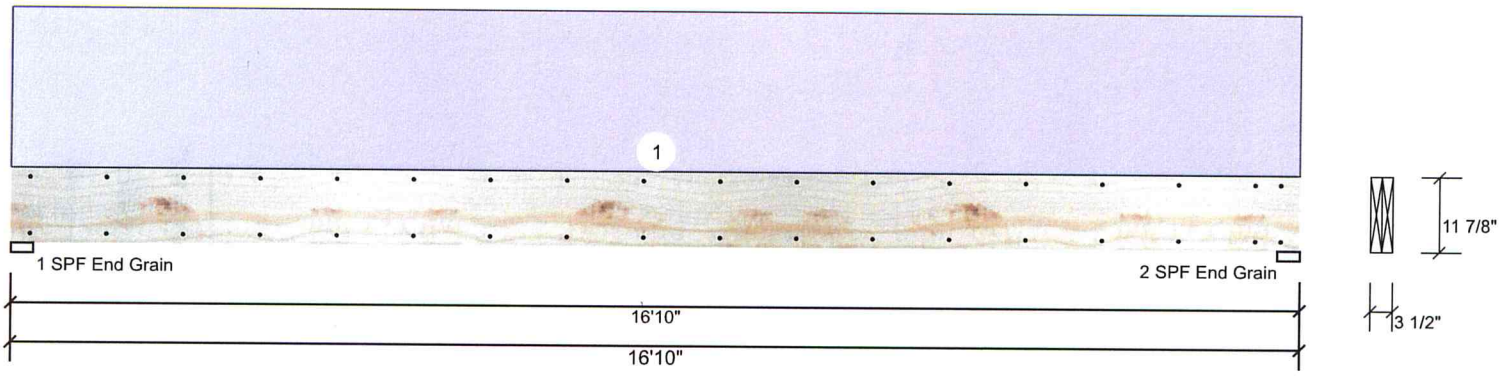
GDH Kerto-S LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	2182	0	0	0
2	0	2182	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	20%	2182 / 0	2182	Uniform	D
2 - SPF End Grain	3.500"	20%	2182 / 0	2182	Uniform	D

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	8689 ft-lb	8'5"	17919 ft-lb	0.485 (48%)	D	Uniform
Unbraced	8689 ft-lb	8'5"	8700 ft-lb	0.999 (100%)	D	Uniform
Shear	1866 lb	15'7 3/8"	7980 lb	0.234 (23%)	D	Uniform
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.453 (L/433)	8'5 1/16"	0.546 (L/360)	0.830 (83%)	D	Uniform

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top must be laterally braced at a maximum of 10'9" o.c.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	250 PLF	0 PLF	0 PLF	0 PLF	0 PLF	
	Self Weight				9 PLF					

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
2. LVL not to be treated with fire retardant or corrosive 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 lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

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Comtech, Inc.
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eaction Summary of Order

ComTech ROOF & FLOOR TRUSSES & BEAMS
ly Road Industrial Park P.O. Box 40408
etteville, N.C. 28309 (910) 864-TRUS
y Office: (919) 816-0105

REQ. QUOTE DATE	/ /	ORDER #	J0320-1195
ORDER DATE	03/13/20	QUOTE #	
DELIVERY DATE	/ /	CUSTOMER ACCT #	0000007060
DATE OF INVOICE	/ /	CUSTOMER PO #	
ORDERED BY	Ben Stout	INVOICE #	
COUNTY	Harnett Co	TERMS	
SUPERINTENDANT	Ben Stout	SALES REP	Marshall Naylor
JOBSITE PHONE #	(910) 476-4502	SALES AREA	Curtis Quick

Benjamin Stout Real Estate
PO Box 53798
Fayetteville, NC 28305
(910) 476-4502

Benjamin Stout
38 Kotata Ave
Harnett County, NC

JOB NAME: Lot 38 Blackberry Manor **LOT #** 38 **SUBDIV:** Blackberry Manor
MODEL: Roof **TAG:** The Reedsville **JOB CATEGORY:** Residential - Roof

DELIVERY INSTRUCTIONS:

SPECIAL INSTRUCTIONS:
3844 Blossom Rd.

PLAN SEAL DATE: N/A

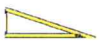
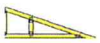
ILDING DEPARTMENT	OVERHANG INFO		HEEL HEIGHT	00-04-05	REQ. LAYOUTS	REQ. ENGINEERING		BY	DATE
of Order	END CUT	RETURN			NONE	NONE	QUOTE		/ /
	PLUMB	NO	GABLE STUDS	16 IN. OC			LAYOUT		/ /
							CUTTING		/ /

ROOF TRUSSES

LOADING INFORMATION

TCLL-TCDL-BCLL-BCDL	STRESS INCR.
20.0,10.0,0.0,10.0	1.15

ROOF TRUSS SPACING: 24.0 IN. O.C. (TYP.)

PROFILE	QTY / PLY	PITCH TOP	PITCH BOT	TYPE ID	BASE O/A	LUMBER TOP	LUMBER BOT	OVERHANG LEFT	OVERHANG RIGHT	REACTIONS
	1 / 2 Ply	12.00	0.00	FINK C2GDR	18-03-08 18-03-08	2 X 4	2 X 8			Joint 1 5035.7 lbs. -343.7 lbs. Joint 5 5959.9 lbs. -403.1 lbs.
	8	-4.00	0.00	ROOF M1	06-00-00 06-00-00	2 X 4	2 X 4		00-10-08	Joint 2 291.8 lbs. -59.1 lbs. Joint 4 219.4 lbs. -39.5 lbs.
	1	-4.00	0.00	GABLE M1GE	06-00-00 06-00-00	2 X 4	2 X 4		00-10-08	Joint 3 183.3 lbs. -66.6 lbs. Joint 5 300.1 lbs. -111.9 lbs. Joint 6 30.8 lbs. -13.6 lbs.
	5	6.00	0.00	COMMON P1	12-00-00 12-00-00	2 X 4	2 X 4	00-10-08	00-10-08	Joint 2 529.6 lbs. -53.9 lbs. Joint 4 529.6 lbs. -53.9 lbs.
	1	6.00	0.00	GABLE P1GE	12-00-00 12-00-00	2 X 4	2 X 4	00-10-08	00-10-08	Joint 2 529.6 lbs. -136.5 lbs. Joint 4 529.6 lbs. -136.5 lbs.
	1	12.00	0.00	VALLEY VC1	12-02-04 12-02-04	2 X 4	2 X 4			Joint 1 111.4 lbs. -59.7 lbs. Joint 5 91.0 lbs. -37.0 lbs. Joint 6 338.0 lbs. -166.6 lbs. Joint 7 223.5 lbs. 46.8 lbs. Joint 8 338.3 lbs. -166.7 lbs.
	1	12.00	0.00	VALLEY VC2	08-02-04 08-02-04	2 X 4	2 X 4			Joint 1 182.3 lbs. -35.3 lbs. Joint 3 182.3 lbs. -35.3 lbs. Joint 4 234.1 lbs. 21.5 lbs.
	1	12.00	0.00	VALLEY VC3	04-02-04 04-02-04	2 X 4	2 X 4			Joint 1 84.9 lbs. -16.4 lbs. Joint 3 84.8 lbs. -16.4 lbs. Joint 4 109.0 lbs. 10.0 lbs.

TEMS

QTY	ITEM TYPE	SIZE	LENGTH FT-IN-16	PART NUMBER	NOTES
9	Hangers	HUS26			USP (HUS26)

eaction Summary of Order

ComTech ROOF & FLOOR TRUSSES & BEAMS
ly Road Industrial Park P.O. Box 40408
etteville, N.C. 28309 (910) 864-TRUS
y Office: (919) 816-0105

REQ. QUOTE DATE	/ /	ORDER #	J0320-1195
ORDER DATE	03/13/20	QUOTE #	
DELIVERY DATE	/ /	CUSTOMER ACCT #	0000007060
DATE OF INVOICE	/ /	CUSTOMER PO #	
ORDERED BY	Ben Stout	INVOICE #	
COUNTY	Harnett Co	TERMS	
SUPERINTENDANT	Ben Stout	SALES REP	Marshall Naylor
JOBSITE PHONE #	(910) 476-4502	SALES AREA	Curtis Quick

Benjamin Stout Real Estate
PO Box 53798
Fayetteville, NC 28305
(910) 476-4502

Benjamin Stout
38 Kotata Ave
Harnett County, NC

JOB NAME: Lot 38 Blackberry Manor **LOT #** 38 **SUBDIV:** Blackberry Manor
MODEL: Roof **TAG:** The Reedsville **JOB CATEGORY:** Residential - Roof

DELIVERY INSTRUCTIONS:

SPECIAL INSTRUCTIONS:
3844 Blossom Rd.

PLAN SEAL DATE: N/A

ILDING DEPARTMENT
of Order

OVERHANG INFO		HEEL HEIGHT	00-04-05
END CUT	RETURN		
PLUMB	NO	GABLE STUDS	16 IN. OC

REQ. LAYOUTS	REQ. ENGINEERING		BY	DATE
NONE	NONE	QUOTE		/ /
		LAYOUT		/ /
		CUTTING		/ /

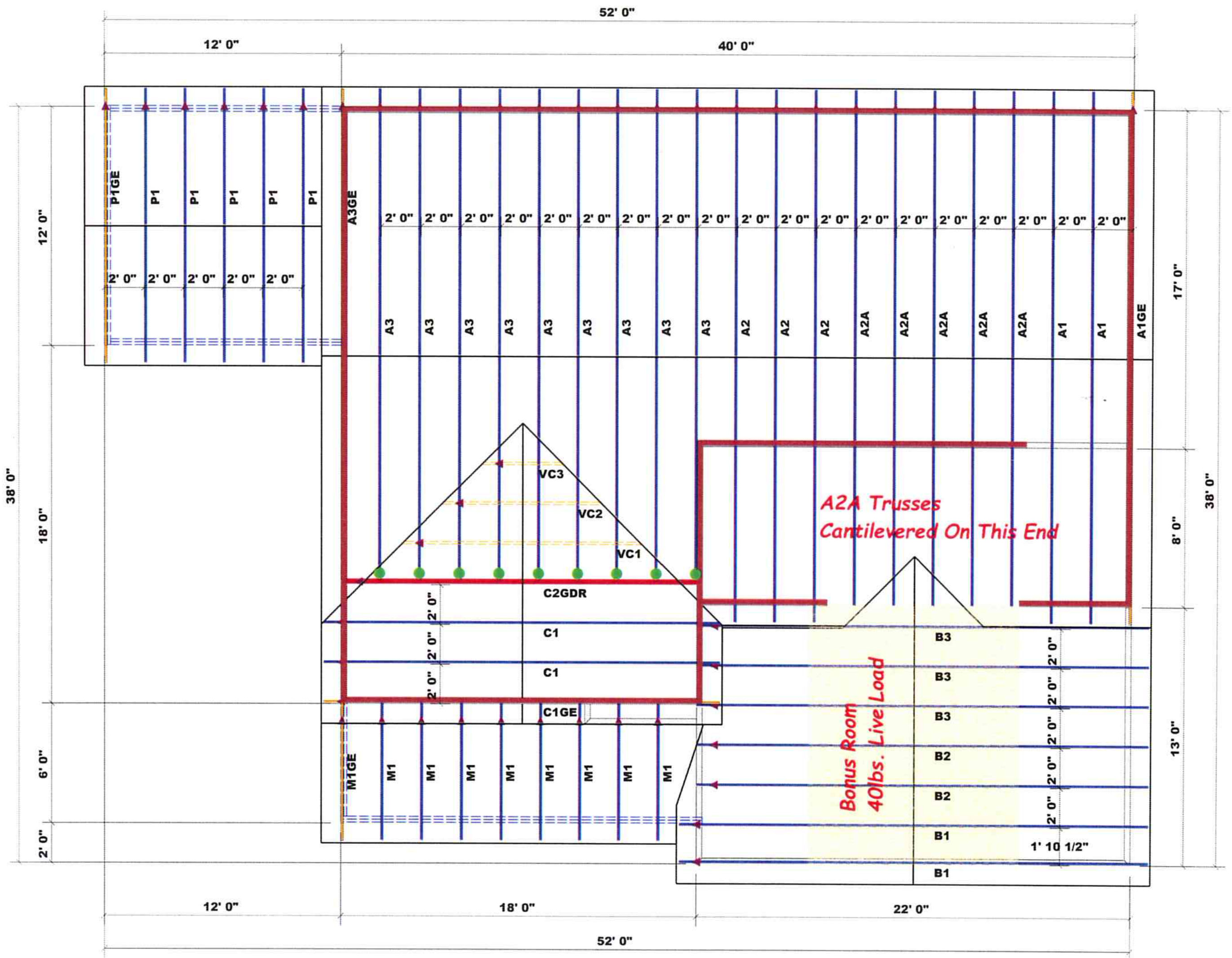
ROOF TRUSSES

LOADING INFORMATION

TCLL-TCDL-BCLL-BCDL	STRESS INCR.
20.0,10.0,0.0,10.0	1.15

ROOF TRUSS SPACING: 24.0 IN. O.C. (TYP.)

PROFILE	QTY	PITCH		TYPE	BASE	LUMBER		OVERHANG		REACTIONS				
	PLY	TOP	BOT	ID	O/A	TOP	BOT	LEFT	RIGHT					
	2	12.00	0.00	COMMON A1	25-00-00 25-00-00	2 X 4	2 X 6	00-10-08	00-10-08	Joint 2 1498.1 lbs. -68.2 lbs.	Joint 8 1498.1 lbs. -68.2 lbs.			
	1	12.00	0.00	GABLE A1GE	25-00-00 25-00-00	2 X 4	2 X 6	00-10-08	00-10-08	Joint 2 353.3 lbs. -138.4 lbs.	Joint 16 319.3 lbs. -88.0 lbs.	Joint 18 248.9 lbs. -236.0 lbs.	Joint 19 220.2 lbs. -129.0 lbs.	Joint 20 290.1 lbs. -144.9 lbs.
	3	12.00	0.00	COMMON A2	25-00-00 25-00-00	2 X 4	2 X 6	00-10-08	00-10-08	Joint 2 826.8 lbs. -39.5 lbs.	Joint 10 2204.7 lbs. -99.7 lbs.			
	5	12.00	0.00	COMMON A2A	25-00-00 25-00-00	2 X 4	2 X 6	00-10-08		Joint 2 835.7 lbs. -40.5 lbs.	Joint 9 2154.8 lbs. -87.1 lbs.			
	9	12.00	0.00	COMMON A3	23-09-00 23-09-00	2 X 4	2 X 6	00-10-08		Joint 2 1374.0 lbs. -63.3 lbs.	Joint 10 1125.0 lbs. -63.6 lbs.			
	1	12.00	0.00	COMMON A3GE	23-09-00 23-09-00	2 X 4	2 X 6	00-10-08		Joint 2 357.2 lbs. -274.7 lbs.	Joint 18 298.3 lbs. -125.9 lbs.	Joint 19 234.6 lbs. -352.7 lbs.	Joint 20 235.7 lbs. -127.2 lbs.	Joint 21 285.9 lbs. -144.1 lbs.
	2	12.00	0.00	ATTIC B1	22-00-00 21-11-00	2 X	2 X 10	00-11-00	00-11-00	Joint 2 1438.3 lbs. 19.1 lbs.	Joint 12 1438.3 lbs. 19.1 lbs.			
	2	12.00	0.00	ATTIC B2	22-00-00 21-11-08	2 X	2 X 10		00-11-00	Joint 1 1413.1 lbs. 140.1 lbs.	Joint 11 1448.1 lbs. 138.5 lbs.			
	3	12.00	0.00	ATTIC B3	21-08-08 21-08-00	2 X	2 X 10	00-03-08	00-11-00	Joint 1 1413.7 lbs. 141.8 lbs.	Joint 10 1426.5 lbs. 136.3 lbs.			
	2	12.00	0.00	QUEENPOST C1	18-03-08 18-03-08	2 X 6	2 X 6	00-10-08	00-10-08	Joint 2 774.3 lbs. -52.0 lbs.	Joint 6 774.3 lbs. -52.0 lbs.			
	1	12.00	0.00	GABLE C1GE	18-03-08 18-03-08	2 X 6	2 X 6	00-10-08	00-10-08	Joint 2 280.9 lbs. -128.1 lbs.	Joint 12 246.8 lbs. -77.7 lbs.	Joint 14 161.4 lbs. -158.3 lbs.	Joint 15 189.9 lbs. -147.1 lbs.	Joint 16 238.8 lbs. -157.1 lbs.



COMTECH
ROOF & FLOOR
TRUSSES & BEAMS
Reilly Road Industrial Park
Fayetteville, N.C. 28309
Phone: (910) 864-8787
Fax: (910) 864-4444

Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables (derived from the prescriptive Cod requirements) to determine the minimum foundatio size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attache Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature Curtis Quick
Curtis Quick

LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (UP TO)	REQ'D STUDS FOR (2) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (UP TO)	REQ'D STUDS FOR
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

BUILDER	Benjamin Stout	CITY / CO.	Harnett County / Harnett Co
JOB NAME	Lot 38 Blackberry Manor	ADDRESS	38 Kotata Ave
PLAN	The Reedsville	MODEL	Roof
SEAL DATE	N/A	DATE REV.	/ /
QUOTE #	Quote #	DRAWN BY	Curtis Quick
JOB #	J0320-1195	SALES REP.	Marshall Naylor

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com

▲ = Denotes Left End of Truss
(Reference Engineered Truss Drawing)
Do Not Erect Trusses Backwards

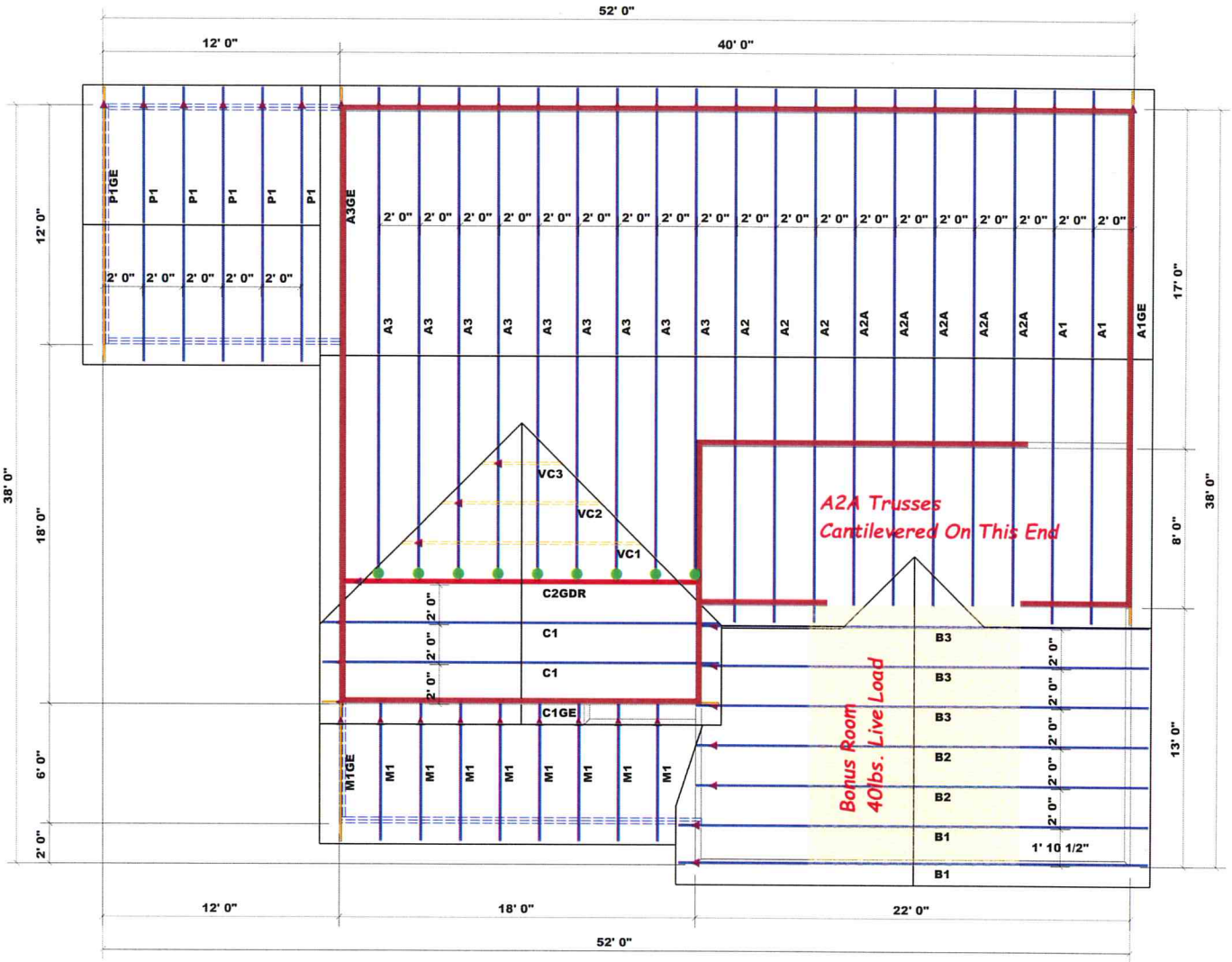
Hatch Legend

2nd Floor Bearing Walls @ 8' 1-1/2"

Truss Placement Plan
SCALE: 1/4" = 1'

HANGER LEGEND

● = USP HUS26 / Single 2x Hanger



▲ = Denotes Left End of Truss
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Do Not Erect Trusses Backwards

Hatch Legend

2nd Floor Bearing Walls @ 8' 1-1/2"

Truss Placement Plan
SCALE: 1/4" = 1'

HANGER LEGEND

= USP HUS26 / Single 2x Hanger

COMTECH
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Phone: (910) 864-8787
Fax: (910) 864-4444

Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables (derived from the prescriptive Code requirements) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature Curtis Quick

Curtis Quick

LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (3))

NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER

END REACTION (LB TOT)	REQ'D STUDS FOR (2) PLY HEADER	END REACTION (LB TOT)	REQ'D STUDS FOR (3) PLY HEADER	END REACTION (LB TOT)	REQ'D STUDS FOR (4) PLY HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

CITY / CO.	Harnett County / Harnett Co
ADDRESS	38 Kotata Ave
MODEL	Roof
DATE REV.	/ /
DRAWN BY	Curtis Quick
SALES REP.	Marshall Naylor
BUILDER	Benjamin Stout
JOB NAME	Lot 38 Blackberry Manor
PLAN	The Reedsville
SEAL DATE	N/A
QUOTE #	Quote #
JOB #	J0320-1195

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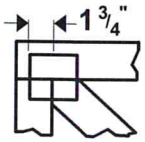
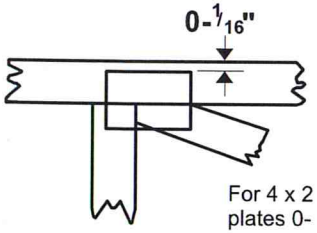
Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

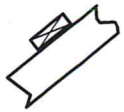
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

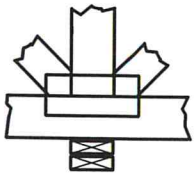
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING

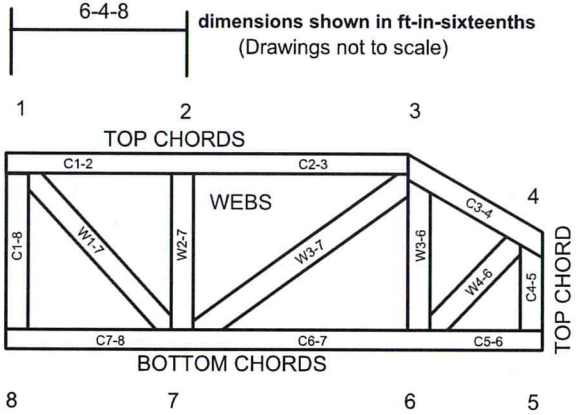


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

MiTek

ENGINEERING BY TRENCO
A MiTek Affiliate

MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.

eaction Summary of Order

ComTech ROOF & FLOOR TRUSSES & BEAMS
ly Road Industrial Park P.O. Box 40408
etteville, N.C. 28309 (910) 864-TRUS
y Office: (919) 816-0105

REQ. QUOTE DATE	/ /	ORDER #	J0320-1196
ORDER DATE	03/13/20	QUOTE #	
DELIVERY DATE	/ /	CUSTOMER ACCT #	0000007060
DATE OF INVOICE	/ /	CUSTOMER PO #	
ORDERED BY		INVOICE #	
COUNTY	Harnett	TERMS	
SUPERINTENDANT	Ben Stout	SALES REP	Marshall Naylor
JOBSITE PHONE #	(910) 476-4502	SALES AREA	Curtis Quick

Benjamin Stout Real Estate
PO Box 53798
Fayetteville, NC 28305
(910) 476-4502

Benjamin Stout
38 Kotata Ave
Harnett County, NC

JOB NAME: Lot 38 Blackberry Manor **LOT #** 38 **SUBDIV:** Blackberry Manor
MODEL: Floor **TAG:** The Reedsville **JOB CATEGORY:** Residential - Floor

DELIVERY INSTRUCTIONS:

SPECIAL INSTRUCTIONS:
Like Lot 3 Barrington Place (J1119-5123)

PLAN SEAL DATE: N/A

ILDING DEPARTMENT
oor Order

OVERHANG INFO		HEEL HEIGHT	00-04-05	REQ. LAYOUTS	REQ. ENGINEERING		BY	DATE
END CUT	RETURN			NONE	NONE	QUOTE		/ /
PLUMB	NO	GABLE STUDS	16 IN. OC			LAYOUT	mn	03/13/20
						CUTTING		/ /

FLOOR TRUSSES

LOADING INFORMATION

TCLL-TCDL-BCLL-BCDL	STRESS INCR.
40.0,10.0,0.0,5.0	1.00

FLOOR TRUSS SPACING: 24.0 IN. O.C. (TYP.)

FLOOR PROFILE	QTY / PLY	DEPTH ID	BASE SPAN	O/A SPAN	END TYPE LEFT	END TYPE RIGHT	INT BEARING SIZE	INT BEARING LOCATION	REACTIONS
	1	01-02-00 KW1	29-11-00	29-11-00					Joint 26 8.3 lbs. Joint 27 104.1 lbs. Joint 28 153.0 lbs. Joint 29 145.0 lbs. Joint 30 147.1 lbs.
	1	01-02-00 KW2	24-06-04	24-06-04					Joint 22 9.9 lbs. Joint 23 102.2 lbs. Joint 24 152.7 lbs. Joint 25 145.1 lbs. Joint 26 147.1 lbs.

TEMS

QTY	ITEM TYPE	SIZE	LENGTH FT-IN-16	PART NUMBER	NOTES
12	Hangers, USP	JUS414			SIMPSON (LUS414)
2	LVL Beams (Sized)	LVL, 1-3/4" x 9-1/4" (S)	09-00-00		BM2
2	LVL Beams (Sized)	LVL, 1-3/4" x 9-1/4" (S)	07-00-00		BM4
3	LVL Beams (Sized)	LVL, 1-3/4" x 14" (S)	22-00-00		BM1
2	LVL Beams (Sized)	LVL, 1-3/4" x 14" (S)	07-00-00		BM3
3	LVL Beams (Sized)	LVL, 1-3/4" x 18" (S)	21-00-00		GDH (Side Load)
4	Hangers, USP	MSH422			SIMPSON (THA422)

eaction Summary of Order

ComTech ROOF & FLOOR TRUSSES & BEAMS
ly Road Industrial Park P.O. Box 40408
etteville, N.C. 28309 (910) 864-TRUS
y Office: (919) 816-0105

REQ. QUOTE DATE	/ /	ORDER #	J0320-1196
ORDER DATE	03/13/20	QUOTE #	
DELIVERY DATE	/ /	CUSTOMER ACCT #	0000007060
DATE OF INVOICE	/ /	CUSTOMER PO #	
ORDERED BY		INVOICE #	
COUNTY	Harnett	TERMS	
SUPERINTENDANT	Ben Stout	SALES REP	Marshall Naylor
JOBSITE PHONE #	(910) 476-4502	SALES AREA	Curtis Quick

Benjamin Stout Real Estate
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Harnett County, NC

JOB NAME: Lot 38 Blackberry Manor **LOT #** 38 **SUBDIV:** Blackberry Manor
MODEL: Floor **TAG:** The Reedsville **JOB CATEGORY:** Residential - Floor

DELIVERY INSTRUCTIONS:

SPECIAL INSTRUCTIONS:
Like Lot 3 Barrington Place (J1119-5123)

PLAN SEAL DATE: N/A

UILDING DEPARTMENT
oor Order

OVERHANG INFO		HEEL HEIGHT	00-04-05	REQ. LAYOUTS	REQ. ENGINEERING
END CUT	RETURN			NONE	NONE
PLUMB	NO	GABLE STUDS	16 IN. OC		

	BY	DATE
QUOTE		/ /
LAYOUT	mn	03/13/20
CUTTING		/ /

FLOOR TRUSSES

LOADING INFORMATION

TCLL-TCDL-BCLL-BCDL	STRESS INCR.
40.0,10.0,0.0,5.0	1.00

FLOOR TRUSS SPACING: 24.0 IN. O.C. (TYP.)

FLOOR PROFILE	QTY / PLY	DEPTH ID	BASE SPAN	O/A SPAN	END TYPE LEFT	END TYPE RIGHT	INT BEARING SIZE	INT BEARING LOCATION	REACTIONS
	6	01-02-00 F01	29-11-00	29-11-00					Joint 15: 851.2 lbs. / 201.7 lbs.; Joint 21: 1881.8 lbs. / 1073.4 lbs.; Joint 24: 622.4 lbs. / 76.8 lbs.
	1	01-02-00 F02	29-08-00	29-08-00					Joint 15: 846.1 lbs. / 199.5 lbs.; Joint 21: 1861.5 lbs. / 1068.1 lbs.; Joint 24: 623.7 lbs. / 81.4 lbs.
	1	01-02-00 F02G	29-08-00	29-08-00					Joint 15: 1096.9 lbs. / 452.0 lbs.; Joint 21: 2345.2 lbs. / 1648.7 lbs.; Joint 24: 592.0 lbs. / 59.7 lbs.
	10	01-02-00 F03	24-06-04	24-06-04					Joint 13: 375.1 lbs. / -11.9 lbs.; Joint 16: 1529.8 lbs. / 728.5 lbs.; Joint 22: 865.5 lbs. / 230.0 lbs.
	1	01-02-00 F03G	24-06-04	24-06-04					Joint 16: 31.6 lbs. / 31.6 lbs.; Joint 17: 132.5 lbs. / 132.3 lbs.; Joint 18: 152.9 lbs. / 152.2 lbs.; Joint 19: 138.0 lbs. / 135.6 lbs.; Joint 20: -316.9 lbs. / -620.3 lbs.
	1	01-02-00 F04	14-08-00	14-08-00					Joint 8: 792.9 lbs. / 361.2 lbs.; Joint 12: 786.7 lbs. / 451.3 lbs.
	1	01-02-00 F05	04-03-00	04-03-00					Joint 9: 213.1 lbs. / 122.6 lbs.; Joint 10: 213.1 lbs. / 122.6 lbs.
	1	01-02-00 F06G	03-04-08	03-04-08					Joint 4: 518.3 lbs.; Joint 5: 518.3 lbs.
	1	01-02-00 F07G	03-08-00	03-08-00					Joint 4: 269.0 lbs.; Joint 5: 303.1 lbs.