Engineering Note Page (ENP-2)

REVISION 2018-10-17

Please read all notes prior to installation of the component

DESIGN INFORMATION

This building component is certified as an individual component for the loads and conditions shown on the calculation and drawing page.

The responsibility of the undersigned engineer is only limited to the calculation of this building component for the loads and conditions shown on this drawing.

The responsibility of the undersigned is limited to the verification of the structural capacity of the floor joists and LVL beams based on placement as shown on the layout. The loads applied are limited to the gravity effects of the specified loads. The structural integrity of the building and the effect of wind, uplift, seismic, lateral or other forces, calculation of adequate support and anchorage of components, as well as the dimensions and design loads used to calculate components are the responsibility of the overall building designer.

Floor joists and OSB rim board are designed to carry uniformly distributed loads only. Point loads should be transferred through the floor cavity with transfer blocks. Structural elements such as walls, posts, connectors, and transfer blocks are the responsibility of the overall building designer.

The undersigned engineer disclaims any responsibility for damages as a result of being furnished faulty or incorrect information, specifications and/or designs.

Installation of floor joists is to be carried out in accordance with the current edition of the manufacturer's literature available at http://www.kottgroup.com.

CODE

This building component is designed in accordance with the National Building Code of Canada, the Ontario Building Code, CCMC and Canadian Standards Association guidelines.

COMPONENT

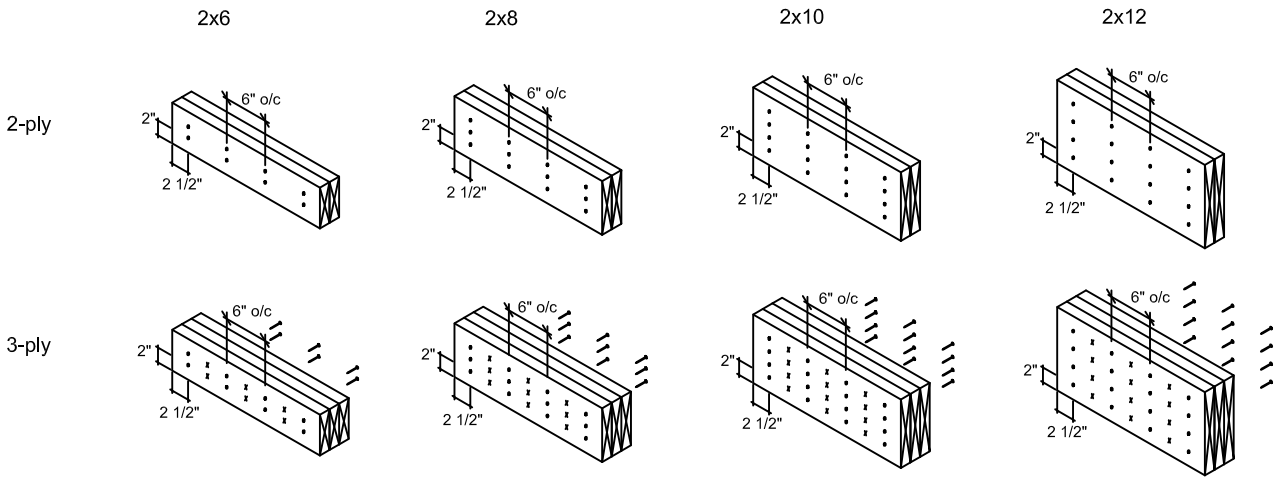
1. The building component used in construction must be the same as indicated on the drawings.
2. The building component must be installed and assembled as per specification shown on the drawing and in accordance with the manufacturer’s assembly and installation.
3. Members consisting of multiple plies must be connected as per the document “Multi-ply Connection Details”.
4. Pass-thru transfer block framing is required at all point loads over bearings.

HANDLING AND INSTALLATION

Do not drill any hole, cut or notch a certified building component without a written pre-authorization.

KOTT

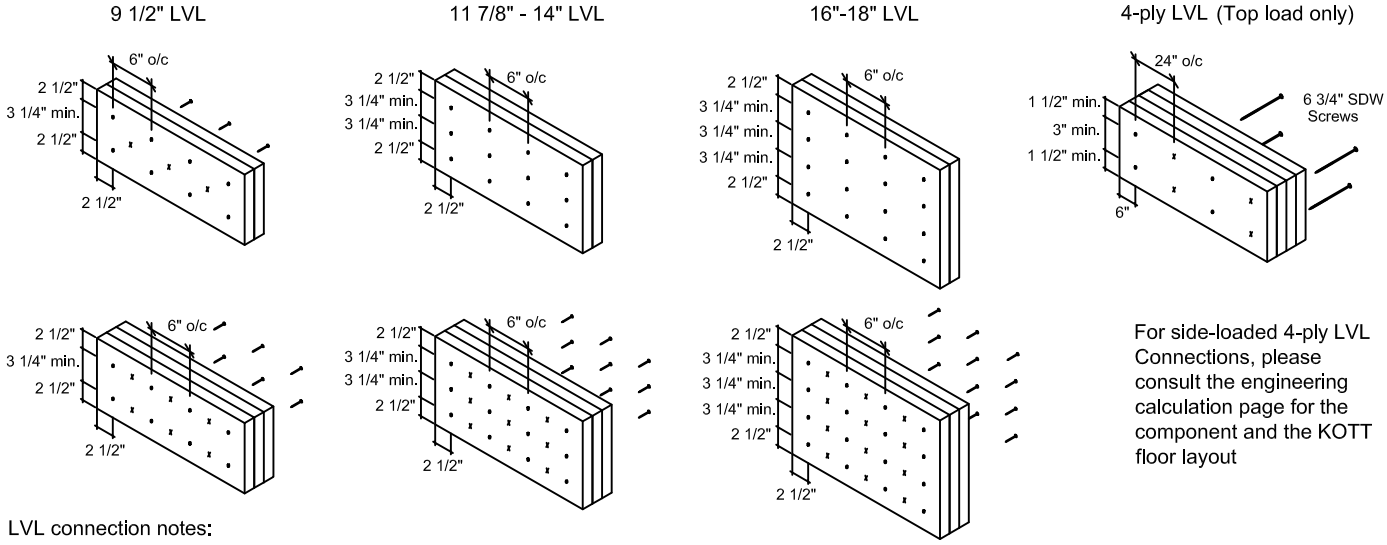
Conventional Connections



Conventional connection notes:

-Nails to be 3" long wire nails.
-Nails to be located 2" min. from the top and bottom of the member. Start all nails 2 1/2" min. from ends.
-Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

LVL Connections



For side-loaded 4-ply LVL Connections, please consult the engineering calculation page for the component and the KOTT floor layout

LVL connection notes:

-LVL ply width is 1-3/4"
-Nails to be 3 1/2" common wire nails.
-Nails to be located 2 1/2" min. from the top and bottom of the member. Start all nails 2 1/2" min. from ends.
-Minimum 3 1/4" spacing between rows.
-Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail or screw driven from the opposite side.

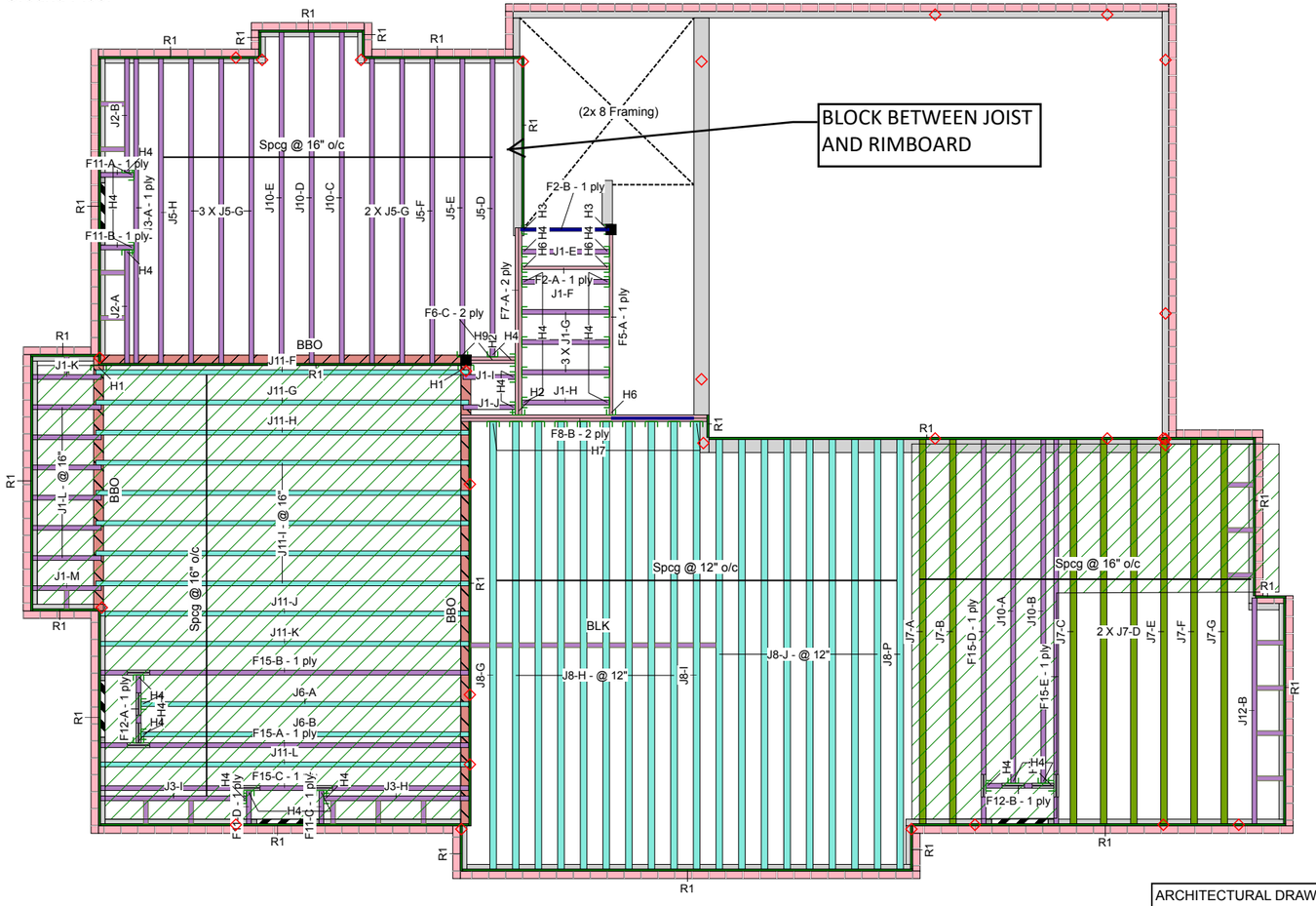
Multiple Member Connections

All connections are for uniformly distributed loads.

For multi-ply connections of I-joists, refer to Manufacturer's Installation Guide

KOTT Inc.
3228 Moodie Drive
Ottawa, ON
K2H 7V1
613-838-2775

Ground Floor



Ground Floor
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F8	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	12-0-0
F7	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	10-0-0
F5	Forex 2.0E-3000Fb LVL	1.75	11.875			1	10-0-0
F2	Forex 2.0E-3000Fb LVL	1.75	11.875			2	4-0-0
F6	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	4-0-0

I Joist (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F15	LPI 20Plus	2.5	11.875			5	18-0-0
F13	LPI 20Plus	2.5	11.875			1	14-0-0
F12	LPI 20Plus	2.5	11.875			2	4-0-0
F11	LPI 20Plus	2.5	11.875			4	2-0-0
J10	LPI 20Plus	2.5	11.875			5	16-0-0
J5	LPI 20Plus	2.5	11.875			9	14-0-0
J12	LPI 20Plus	2.5	11.875			1	10-0-0
J3	LPI 20Plus	2.5	11.875			2	8-0-0
J2	LPI 20Plus	2.5	11.875			2	6-0-0
J1	LPI 20Plus	2.5	11.875			16	4-0-0
J7	NJ40U	3.5	11.875			8	18-0-0
J11	NJ60H	2.5	11.875			11	18-0-0
J6	NJ60H	2.5	11.875			2	16-0-0
J8	NJ60U	3.5	11.875			19	20-0-0

Rim Board

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875			17	12

Blocking

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BLK1	LPI 20 Plus	2.5	11.875	LinFt		Varies	29-0-0

Hanger

Label	Pcs	Description	Skew	Slope	Beam/Girder fasteners	Supported Member fasteners
H1	2	Unknown Hanger				
H2	2	HGUS410			46 16d	16 16d
H3	2	HUCQ1.81/9-SDS				
H4	31	LT251188			4 10dx1 1/2	2 10dx1 1/2
H6	3	HUS1.81/10			30 16d	10 16d
H7	10	LT351188			4 10dx1 1/2	2 10dx1 1/2
H9	1	LT251188				

NOTES:

1. Framer to verify dimensions on the architectural drawings.
2. Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.
3. Install 2x4 blocking @ 24" o/c under parallel non-load bearing walls.
4. Install single-ply flush window header along inside face of rimboard/rimjoist.
5. Refer to Nascor specifier guide for installation works.
6. Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding two levels floor or roof.
7. Load transfer blocks to be installed under all point loads.
8. It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

Refer to Multiple Member Connection Detail to ply to ply nailing or bolting requirements.

Rim parallel to joists: 1-1/8" rimboard with 2"x 4" block (1/16" longer than rim depth @ 16" o/c). All other components and structural elements supporting the floor system such as beams, walls, columns, and foundation walls and footings including anchorage of components and bracing for lateral stability are the responsibility of Others.

Hatch area represents ceramic tiled floor with an addtional dead load of 5 PSF

The framing shown on this layout may deviate from the architectural and structural drawings. Project Engineer to review and approve the deviation prior to construction.

Layout Name
LOT 10 (CELESTIAL 2 2)

Design Method
LSD

Revised
December 14, 2018

Description
GRANELLI HOME CORP.
BRAMPTON, ONT.

Builder
GREEN YORK HOMES

Sales Rep
RM

Designer
RCO

Shipping

Project

Builder's Project

Kott Lumber Company
14 Anderson Blvd
Stouffville, Ontario
Canada
L4A 7X4
905-642-4400

Job Path
D:\Users\rochavillo\WORK FROM HOME\GREEN YORK HOMES \GRANELLI HOME CORP\MODELS \LOT 10 (CELESTIAL 2 ELEV.2) \FLOOR\LOT 10 (CELESTIAL 2 2).isl

Ground Floor

Design Method	LSD
Building Code	NBCC 2010 / OBC 2012

Floor

Loads	
Live	40
Dead	15
Deflection Joist	
LL Span L/	480
TL Span L/	360
LL Cant 2L/	480
TL Cant 2L/	360
Deflection Girder	
LL Span L/	360
TL Span L/	240
LL Cant 2L/	480
TL Cant 2L/	360
Decking	
Deck	OSB
Thickness	3/4"
Fastener	Nailed & Glued
Vibration	

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP INC.
64 Jardin Dr., Suite 3A, Vaughan, ON
Date: Rev.5; Aug.30,2018
Project No: 17-55
Model: Celestial 2

Legend

- Load from Above
- Wall
- Wall Opening
- Norbord Rimboard Plus 1.125 X 11.875
- LPI 20Plus 11.875
- NJ40U 11.875
- NJ60H 11.875
- NJ60U 11.875
- Forex 2.0E-3000Fb LVL 1.75 X 11.875

1. OBC 2012 O.Reg 332/12 as amended
2. Nascor CCMC - 13535-R
3. LVL CCMC -14056-R
4. CAN/CSA-O86-09
5. CCMC -12787-R APA PR-L310(C)

This certification is to confirm that:
1. The loads used in the calculation of the attached approved components conform to the floor assembly shown on this layout.
2. The floor joists comply with the KOTT span table for the loads and spacing shown on this layout.
The floor system must be assembled in accordance to the KOTT Specifier Guide. Multi-ply members must be attached together as per the included multiple member connection detail.
All other components and structural elements supporting the floor system such as beams, walls, columns and foundation walls and footings including anchorage of components and bracing for lateral stability are the responsibility of others.

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO

December 18, 2018

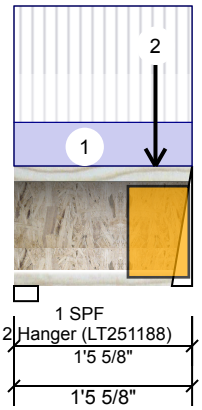
isDesign™

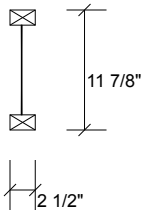
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F11-A LPI 20Plus 11.875" - PASSED

Level: Ground Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	61	23	0	0
2	114	42	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	7%	29 / 92	120	L	1.25D+1.5L
2 - Hanger	2.000"	14%	53 / 171	224	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	42 ft-lb	11 7/16"	6250 ft-lb	0.007 (1%)	1.25D+1.5L	L
Shear	211 lb	1'4 3/8"	2345 lb	0.090 (9%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.000 (L/36074)	11 5/16"	0.041 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/26279)	11 5/16"	0.061 (L/240)	0.010 (1%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.000", Long Term = 0.000"
3 Fill all hanger nailing holes.
4 Girders are designed to be supported on the bottom edge only.
5 Top flange braced at bearings.
6 Bottom flange braced at bearings.

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-5-10	(Span)3-2-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-2-0		Far Face	30 lb	81 lb	0 lb	0 lb	J2

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

This design is valid until 10/31/2020

Manufacturer Info

Louisiana-Pacific Corp
414 Union Street, Suite 2000
Nashville, TN 37219
(888) 820-0325
www.lpcorp.com
CCMC: 12412-R APA: PR-L238C

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

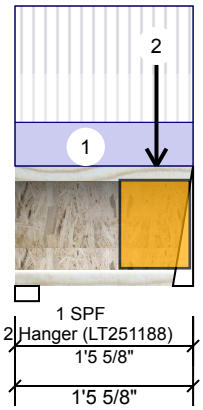
isDesign™

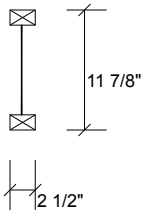
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F11-B LPI 20Plus 11.875" - PASSED

Level: Ground Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	61	23	0	0
2	112	42	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	7%	28 / 91	119	L	1.25D+1.5L
2 - Hanger	2.000"	14%	52 / 167	219	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	41 ft-lb	11 5/16"	6250 ft-lb	0.007 (1%)	1.25D+1.5L	L
Shear	206 lb	1'4 3/8"	2345 lb	0.088 (9%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.000 (L/36734)	11 3/16"	0.041 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/26745)	11 3/16"	0.061 (L/240)	0.010 (1%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.000", Long Term = 0.000"
3 Fill all hanger nailing holes.
4 Girders are designed to be supported on the bottom edge only.
5 Top flange braced at bearings.
6 Bottom flange braced at bearings.

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-5-10	(Span)3-2-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-2-0		Near Face	29 lb	78 lb	0 lb	0 lb	J2

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Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

This design is valid until 10/31/2020

Manufacturer Info

Louisiana-Pacific Corp
414 Union Street, Suite 2000
Nashville, TN 37219
(888) 820-0325
www.lpcorp.com
CCMC: 12412-R APA: PR-L238C

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

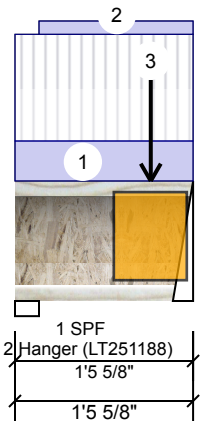
isDesign™

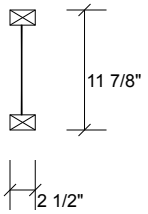
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F11-C LPI 20Plus 11.875" - PASSED

Level: Ground Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	68	32	0	0
2	127	63	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	9%	41 / 102	143	L	1.25D+1.5L
2 - Hanger	2.000"	17%	79 / 191	269	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	59 ft-lb	1' 3/4"	6250 ft-lb	0.009 (1%)	1.25D+1.5L	L
Shear	255 lb	1'4 3/8"	2345 lb	0.109 (11%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/56853)	1' 3/8"	0.041 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/28228)	1' 7/16"	0.041 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/18862)	1' 3/8"	0.061 (L/240)	0.010 (1%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.000", Long Term = 0.000"
3 Fill all hanger nailing holes.
4 Girders are designed to be supported on the bottom edge only.
5 Top flange braced at bearings.
6 Bottom flange braced at bearings.

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-5-10	(Span)3-2-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-2-6 to 1-5-10		Top	8 PLF	0 PLF	0 PLF	0 PLF	
3	Point	1-1-7		Near Face	50 lb	101 lb	0 lb	0 lb	J3

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Notes

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Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

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NASCOR

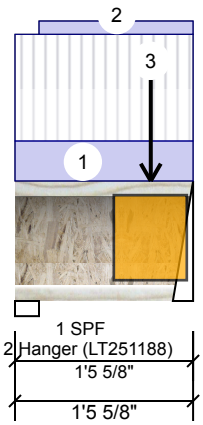
isDesign™

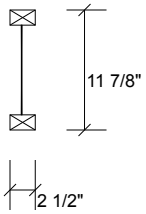
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F11-D LPI 20Plus 11.875" - PASSED

Level: Ground Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	69	33	0	0
2	129	65	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	9%	41 / 103	144	L	1.25D+1.5L
2 - Hanger	2.000"	17%	81 / 194	275	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	60 ft-lb	1' 7/8"	6250 ft-lb	0.010 (1%)	1.25D+1.5L	L
Shear	261 lb	1'4 3/8"	2345 lb	0.111 (11%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/55408)	1' 1/2"	0.041 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/27690)	1' 1/2"	0.041 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/18463)	1' 1/2"	0.061 (L/240)	0.010 (1%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.000", Long Term = 0.000"
3 Fill all hanger nailing holes.
4 Girders are designed to be supported on the bottom edge only.
5 Top flange braced at bearings.
6 Bottom flange braced at bearings.

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-5-10	(Span)3-2-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-2-6 to 1-5-10		Top	8 PLF	0 PLF	0 PLF	0 PLF	
3	Point	1-1-7		Far Face	52 lb	104 lb	0 lb	0 lb	J3

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Notes

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Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

This design is valid until 10/31/2020

Manufacturer Info

Louisiana-Pacific Corp
414 Union Street, Suite 2000
Nashville, TN 37219
(888) 820-0325
www.lpcorp.com
CCMC: 12412-R APA: PR-L238C

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

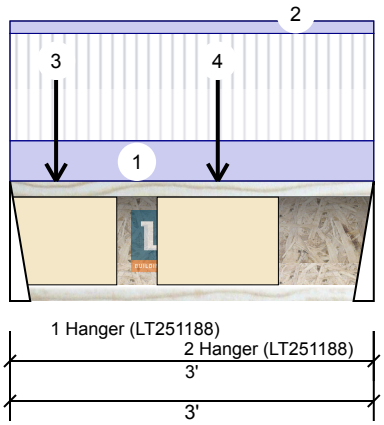
isDesign™

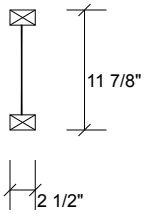
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F12-A LPI 20Plus 11.875" - PASSED

Level: Ground Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	451	219	0	0
2	302	147	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	60%	274 / 677	950	L	1.25D+1.5L
2 - Hanger	2.000"	40%	184 / 453	637	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	693 ft-lb	1'8 9/16"	6250 ft-lb	0.111 (11%)	1.25D+1.5L	L
Shear	943 lb	1 1/4"	2345 lb	0.402 (40%)	1.25D+1.5L	L
Perm Defl in.	0.004 (L/9546)	1'8 9/16"	0.093 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.007 (L/4632)	1'8 9/16"	0.093 (L/360)	0.080 (8%)	L	L
TL Defl inch	0.011 (L/3119)	1'8 9/16"	0.140 (L/240)	0.080 (8%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.004", Long Term = 0.005"
3 Fill all hanger nailing holes.
4 See manufacture installation guide note E4 for installation details
5 Girders are designed to be supported on the bottom edge only.
6 Top flange braced at bearings.
7 Bottom flange braced at bearings.

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-0-0	(Span)1-8-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 3-0-0		Top	4 PLF	0 PLF	0 PLF	0 PLF	
3	Point	0-4-9		Near Face	126 lb	260 lb	0 lb	0 lb	J6
4	Point	1-8-9		Near Face	189 lb	390 lb	0 lb	0 lb	J6

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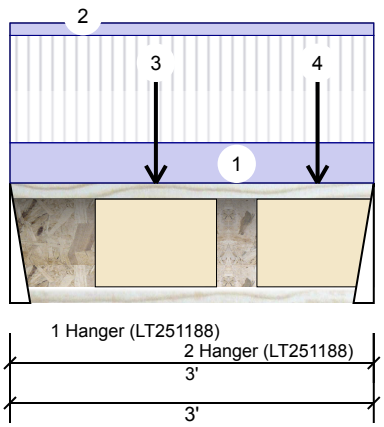
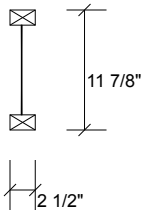
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F12-B LPI 20Plus 11.875" - PASSED

Level: Ground Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	325	159	0	0
2	450	218	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	43%	198 / 487	686	L	1.25D+1.5L
2 - Hanger	2.000"	60%	273 / 676	948	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	701 ft-lb	1'2 7/16"	6250 ft-lb	0.112 (11%)	1.25D+1.5L	L
Shear	941 lb	2'10 3/4"	2345 lb	0.401 (40%)	1.25D+1.5L	L
Perm Defl in.	0.004 (L/9387)	1'2 7/16"	0.093 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.007 (L/4578)	1'2 7/16"	0.093 (L/360)	0.080 (8%)	L	L
TL Defl inch	0.011 (L/3077)	1'2 7/16"	0.140 (L/240)	0.080 (8%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.004", Long Term = 0.005"
3 Fill all hanger nailing holes.
4 See manufacture installation guide note E4 for installation details
5 Girders are designed to be supported on the bottom edge only.
6 Top flange braced at bearings.
7 Bottom flange braced at bearings.

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-0-0	(Span)1-8-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 3-0-0		Top	4 PLF	0 PLF	0 PLF	0 PLF	
3	Point	1-2-7		Far Face	191 lb	391 lb	0 lb	0 lb	J10
4	Point	2-6-7		Far Face	135 lb	281 lb	0 lb	0 lb	J10

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This design is valid until 10/31/2020

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CCMC: 12412-R APA: PR-L238C

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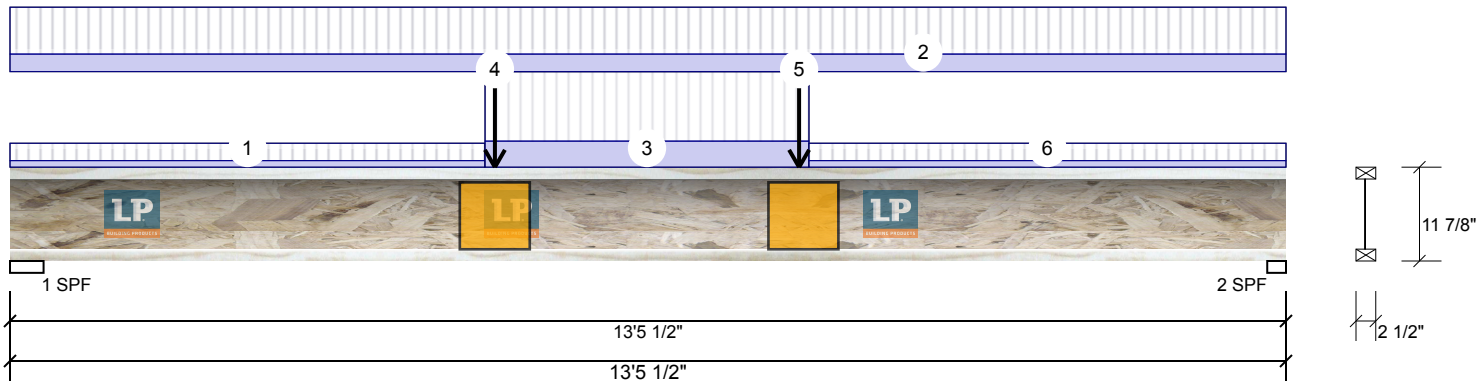
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F13-A LPI 20Plus 11.875" - PASSED

Level: Ground Floor



Member Information

Type:	Girder
Plies:	1
Moisture Condition:	Dry
Deflection LL:	360
Deflection TL:	240
Importance:	Normal
General Load	
Floor Live:	40 PSF
Dead:	15 PSF

Application:	Floor (Residential)
Design Method:	LSD
Building Code:	NBCC 2010 / OBC 2012
Load Sharing:	No
Deck:	Not Checked
Vibration:	Not Checked

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	361	135	0	0
2	352	132	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.250"	39%	169 / 541	709	L	1.25D+1.5L
2 - SPF	2.375"	42%	164 / 528	693	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2806 ft-lb	6'9 13/16"	6250 ft-lb	0.449 (45%)	1.25D+1.5L	L
Shear	692 lb	3 1/2"	2345 lb	0.295 (30%)	1.25D+1.5L	L
Perm Defl in.	0.060 (L/2628)	6'9 5/8"	0.434 (L/360)	0.140 (14%)	D	Uniform
LL Defl inch	0.159 (L/982)	6'9 11/16"	0.434 (L/360)	0.370 (37%)	L	L
TL Defl inch	0.219 (L/715)	6'9 11/16"	0.652 (L/240)	0.340 (34%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.060", Long Term = 0.089"
3 Girders are designed to be supported on the bottom edge only.
4 Top flange must be laterally braced at a maximum of 6'3" o.c.
5 Bottom flange braced at bearings.

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	
1	Tie-In	0-0-0 to 5-0-2	(Span)0-4-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 13-5-8	(Span)1-1-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Tie-In	5-0-2 to 8-5-2	(Span)1-7-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
4	Point	5-1-6		Far Face	42 lb	112 lb	0 lb	0 lb	F11
5	Point	8-3-14		Far Face	42 lb	114 lb	0 lb	0 lb	F11
6	Tie-In	8-5-2 to 13-5-8	(Span)0-4-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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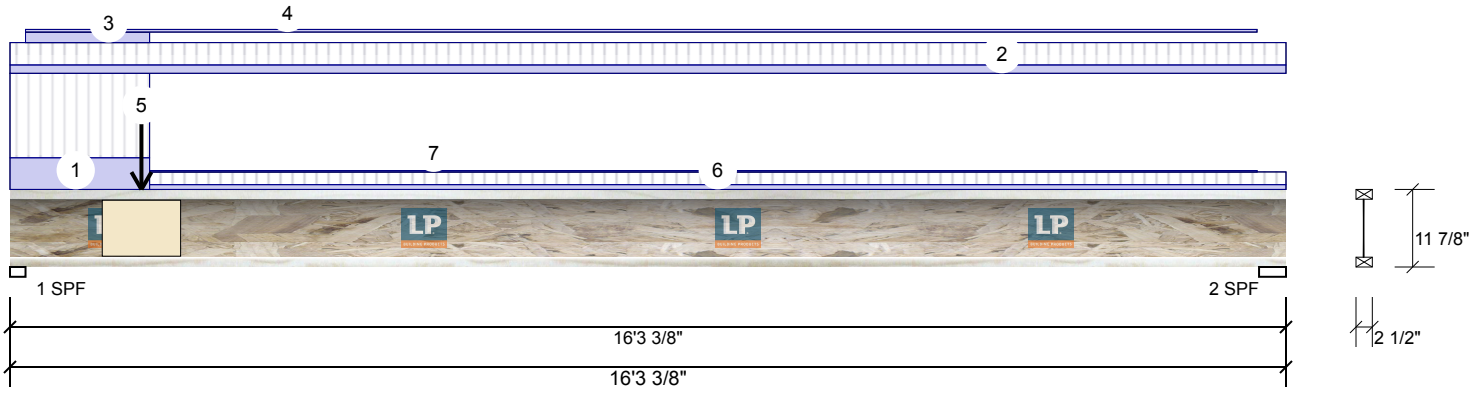
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F15-A LPI 20Plus 11.875" - PASSED

Level: Ground Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	715	347	0	0
2	268	129	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	92%	434 / 1072	1506	L	1.25D+1.5L
2 - SPF	4.125"	31%	162 / 401	563	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2674 ft-lb	6'3"	6250 ft-lb	0.428 (43%)	1.25D+1.5L	L
Shear	1484 lb	1 5/8"	2345 lb	0.633 (63%)	1.25D+1.5L	L
Perm Defl in.	0.101 (L/1881)	7'6 7/8"	0.529 (L/360)	0.190 (19%)	D	Uniform
LL Defl inch	0.208 (L/917)	7'6 7/8"	0.529 (L/360)	0.390 (39%)	L	L
TL Defl inch	0.309 (L/616)	7'6 7/8"	0.793 (L/240)	0.390 (39%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.101", Long Term = 0.152"
3 See manufacture installation guide note E4 for installation details
4 Girders are designed to be supported on the bottom edge only.
5 Top flange must be laterally braced at a maximum of 6'5" o.c.
6 Bottom flange braced at bearings.

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December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-9-6	(Span)3-2-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 16-3-6	(Span)0-10-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-2-6 to 1-9-6		Top	8 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-2-6 to 15-10-15		Top	2 PLF	0 PLF	0 PLF	0 PLF	
5	Point	1-8-2		Far Face	219 lb	451 lb	0 lb	0 lb	F12
6	Tie-In	1-9-6 to 16-3-6	(Span)0-5-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	1-9-6 to 15-10-15		Top	1 PLF	0 PLF	0 PLF	0 PLF	

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Client: GREEN YORK HOMES
Project:
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Date: 12/14/2018
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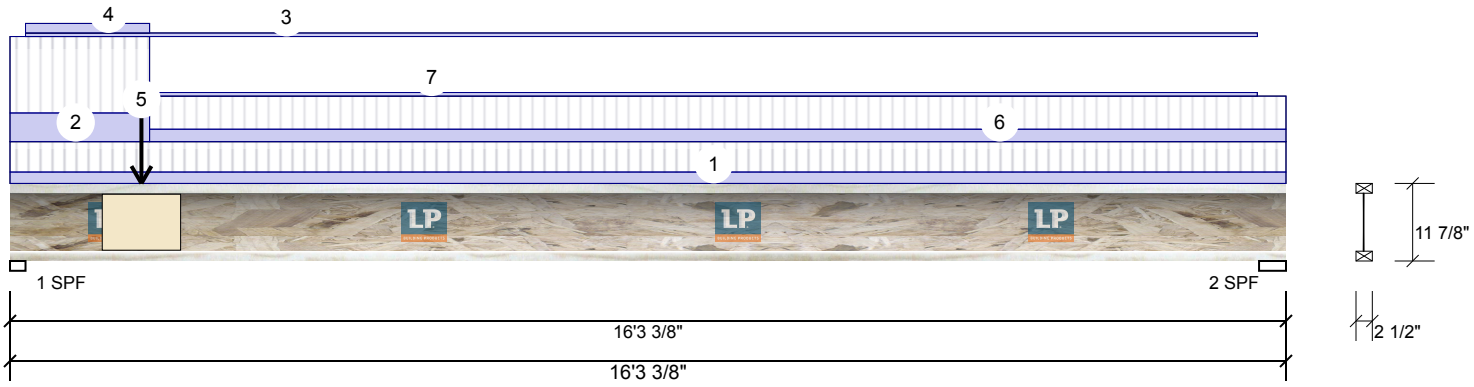
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F15-B LPI 20Plus 11.875" - PASSED

Level: Ground Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	765	372	0	0
2	471	227	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	99%	465 / 1147	1612	L	1.25D+1.5L
2 - SPF	4.125"	54%	284 / 706	990	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4104 ft-lb	7'5 1/2"	6250 ft-lb	0.657 (66%)	1.25D+1.5L	L
Shear	1588 lb	1 5/8"	2345 lb	0.677 (68%)	1.25D+1.5L	L
Perm Defl in.	0.155 (L/1227)	7'10 5/16"	0.529 (L/360)	0.290 (29%)	D	Uniform
LL Defl inch	0.318 (L/598)	7'10 5/16"	0.529 (L/360)	0.600 (60%)	L	L
TL Defl inch	0.473 (L/402)	7'10 5/16"	0.793 (L/240)	0.600 (60%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.155", Long Term = 0.233"
3 See manufacture installation guide note E4 for installation details
4 Girders are designed to be supported on the bottom edge only.
5 Top flange must be laterally braced at a maximum of 5'1" o.c.
6 Bottom flange braced at bearings.

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December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 16-3-6	(Span)1-3-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-9-6	(Span)3-2-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-2-6 to 15-11-0		Top	3 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-2-6 to 1-9-6		Top	8 PLF	0 PLF	0 PLF	0 PLF	
5	Point	1-8-2		Near Face	147 lb	302 lb	0 lb	0 lb	F12
6	Tie-In	1-9-6 to 16-3-6	(Span)1-4-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	1-9-6 to 15-11-0		Top	3 PLF	0 PLF	0 PLF	0 PLF	

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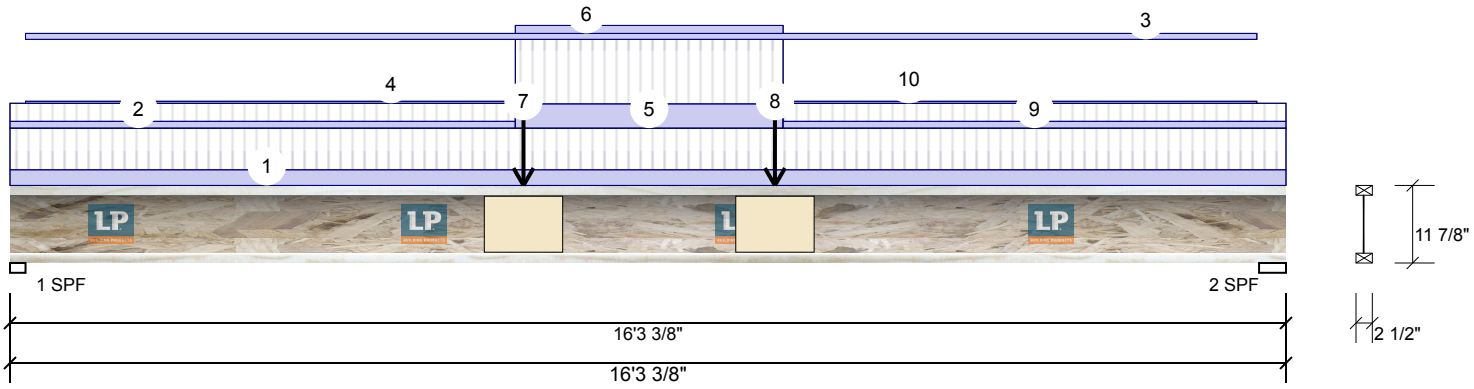
F15-C LPI 20Plus 11.875" - PASSED

Level: Ground Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	408	206	0	0
2	416	209	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	53%	257 / 612	869	L	1.25D+1.5L
2 - SPF	4.125"	48%	261 / 624	885	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4338 ft-lb	8' 5/8"	6250 ft-lb	0.694 (69%)	1.25D+1.5L	L
Shear	868 lb	16'	2345 lb	0.370 (37%)	1.25D+1.5L	L
Perm Defl in.	0.159 (L/1194)	8' 7/8"	0.529 (L/360)	0.300 (30%)	D	Uniform
LL Defl inch	0.316 (L/603)	8' 15/16"	0.529 (L/360)	0.600 (60%)	L	L
TL Defl inch	0.475 (L/400)	8' 15/16"	0.793 (L/240)	0.600 (60%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.159", Long Term = 0.239"
3 See manufacture installation guide note E4 for installation details
4 Girders are designed to be supported on the bottom edge only.
5 Top flange must be laterally braced at a maximum of 4'11" o.c.
6 Bottom flange braced at bearings.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 16-3-6	(Span)1-0-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 6-5-6	(Span)0-5-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-2-6 to 15-10-15		Top	3 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-2-6 to 6-5-6		Top	1 PLF	0 PLF	0 PLF	0 PLF	
5	Tie-In	6-5-6 to 9-10-6	(Span)1-7-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Part. Uniform	6-5-6 to 9-10-6		Top	4 PLF	0 PLF	0 PLF	0 PLF	
7	Point	6-6-10		Near Face	65 lb	129 lb	0 lb	0 lb	F11

Continued on page 2...

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

This design is valid until 10/31/2020

Manufacturer Info

Louisiana-Pacific Corp
414 Union Street, Suite 2000
Nashville, TN 37219
(888) 820-0325
www.lpcorp.com
CCMC: 12412-R APA: PR-L238C

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

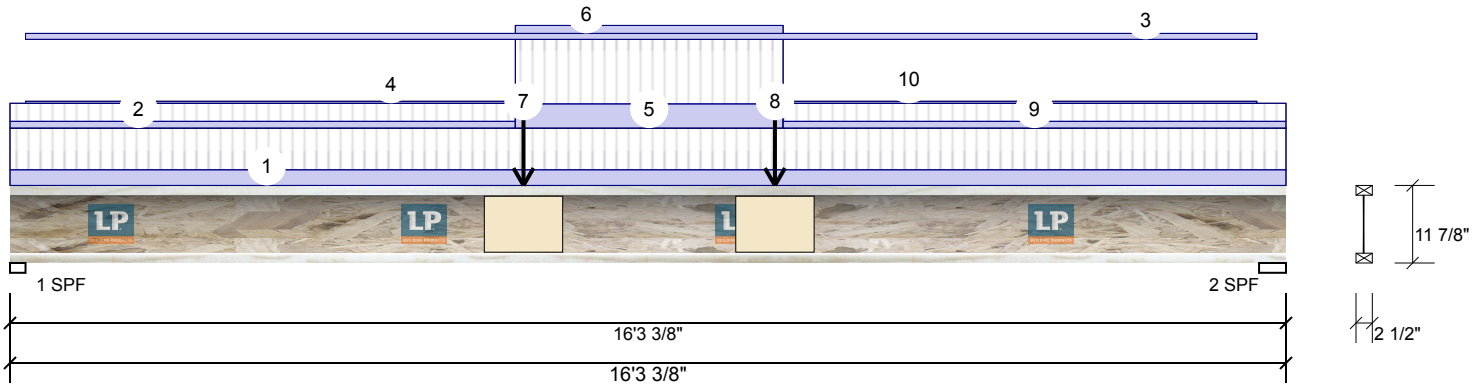
isDesign™

Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F15-C LPI 20Plus 11.875" - PASSED

Level: Ground Floor



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
8	Point	9-9-2		Near Face	63 lb	127 lb	0 lb	0 lb	F11
9	Tie-In	9-10-6 to 16-3-6	(Span)0-5-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
10	Part. Uniform	9-10-6 to 15-10-14		Top	1 PLF	0 PLF	0 PLF	0 PLF	

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Notes

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Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

This design is valid until 10/31/2020

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L4A 7X4
905-642-4400

NASCOR

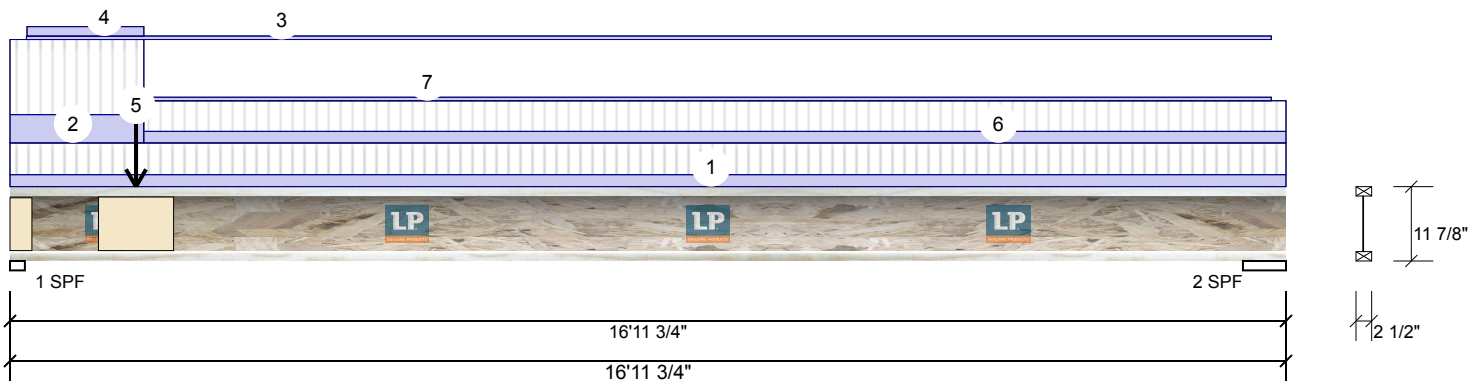
isDesign™

Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F15-D LPI 20Plus 11.875" - PASSED

Level: Ground Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	802	390	0	0
2	497	241	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	79%	488 / 1203	1690	L	1.25D+1.5L
2 - SPF	6.875"	57%	301 / 745	1046	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4358 ft-lb	7'8"	6250 ft-lb	0.697 (70%)	1.25D+1.5L	L
Shear	1666 lb	1 5/8"	2345 lb	0.710 (71%)	1.25D+1.5L	L
Perm Defl in.	0.174 (L/1129)	8'1 1/16"	0.544 (L/360)	0.320 (32%)	D	Uniform
LL Defl inch	0.356 (L/551)	8'1 1/16"	0.544 (L/360)	0.650 (65%)	L	L
TL Defl inch	0.530 (L/370)	8'1 1/16"	0.817 (L/240)	0.650 (65%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.174", Long Term = 0.260"
3 See manufacture installation guide note E4 for installation details
4 Girders are designed to be supported on the bottom edge only.
5 Top flange must be laterally braced at a maximum of 4'10" o.c.
6 Bottom flange braced at bearings.
7 Web stiffeners required at Bearing 1.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 16-11-12	(Span)1-4-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-9-6	(Span)3-2-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-2-10 to 16-9-6		Top	3 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-2-12 to 1-9-6		Top	8 PLF	0 PLF	0 PLF	0 PLF	
5	Point	1-8-2		Near Face	159 lb	325 lb	0 lb	0 lb	F12
6	Tie-In	1-9-6 to 16-11-12	(Span)1-3-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	1-9-6 to 16-9-6		Top	3 PLF	0 PLF	0 PLF	0 PLF	

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

This design is valid until 10/31/2020

Manufacturer Info

Louisiana-Pacific Corp
414 Union Street, Suite 2000
Nashville, TN 37219
(888) 820-0325
www.lpcorp.com
CCMC: 12412-R APA: PR-L238C

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
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905-642-4400

NASCOR

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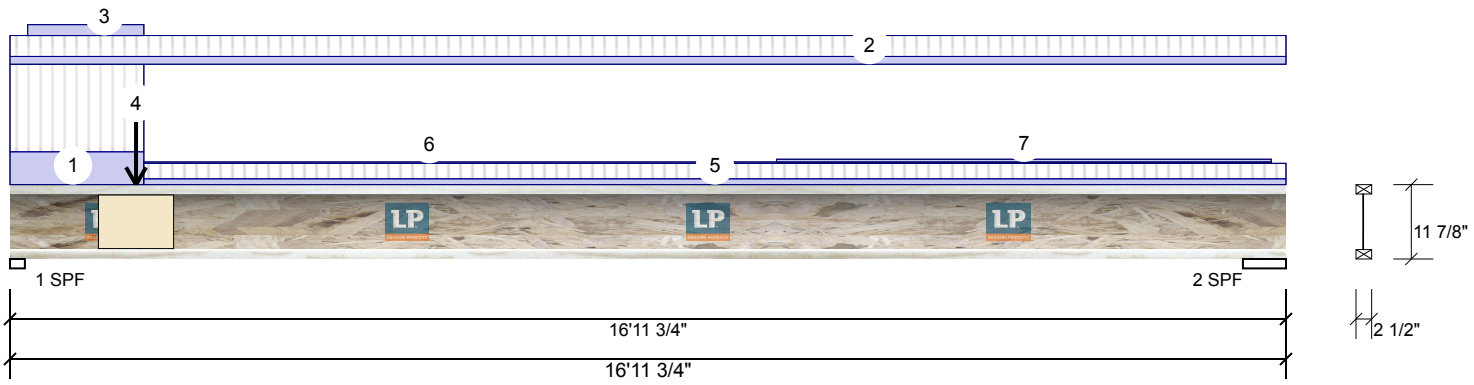
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F15-E LPI 20Plus 11.875" - PASSED

Level: Ground Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	719	335	0	0
2	278	129	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	2.375"	91%	418 / 1078	1496	L	1.25D+1.5L
2 - SPF	6.875"	32%	161 / 417	578	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2709 ft-lb	6'6 1/4"	6250 ft-lb	0.433 (43%)	1.25D+1.5L	L
Shear	1475 lb	1 5/8"	2345 lb	0.629 (63%)	1.25D+1.5L	L
Perm Defl in.	0.103 (L/1907)	7'9 7/8"	0.544 (L/360)	0.190 (19%)	D	Uniform
LL Defl inch	0.227 (L/864)	7'9 7/8"	0.544 (L/360)	0.420 (42%)	L	L
TL Defl inch	0.330 (L/594)	7'9 7/8"	0.817 (L/240)	0.400 (40%)	D+L	L

Design Notes

1 Provide restraint at supports to ensure lateral stability.
2 Dead Load Deflection: Instant = 0.103", Long Term = 0.154"
3 See manufacture installation guide note E4 for installation details
4 Girders are designed to be supported on the bottom edge only.
5 Top flange must be laterally braced at a maximum of 6'4" o.c.
6 Bottom flange braced at bearings.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-9-6	(Span)3-2-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 16-11-12	(Span)0-9-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-2-13 to 1-9-6		Top	8 PLF	0 PLF	0 PLF	0 PLF	
4	Point	1-8-2		Far Face	218 lb	450 lb	0 lb	0 lb	F12
5	Tie-In	1-9-6 to 16-11-12	(Span)0-6-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Part. Uniform	1-9-6 to 16-9-6		Top	1 PLF	0 PLF	0 PLF	0 PLF	
7	Part. Uniform	10-2-6 to 16-9-6		Top	2 PLF	0 PLF	0 PLF	0 PLF	

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

This design is valid until 10/31/2020

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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NASCOR

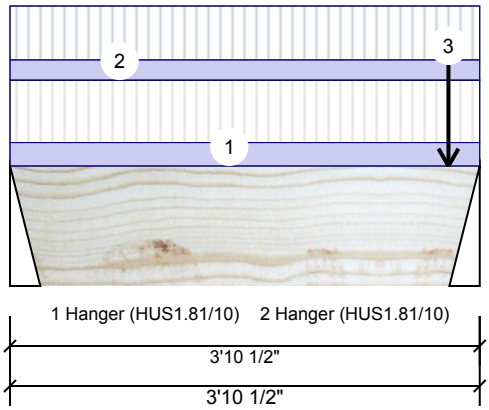
isDesign™

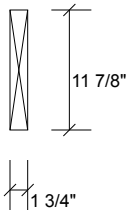
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F2-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Ground Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	62	33	0	0
2	580	266	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	3%	42 / 94	136	L	1.25D+1.5L
2 - Hanger	3.000"	64%	332 / 870	1202	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	133 ft-lb	2'3 13/16"	17130 ft-lb	0.008 (1%)	1.25D+1.5L	L
Unbraced	133 ft-lb	2'3 13/16"	12574 ft-lb	0.011 (1%)	1.25D+1.5L	L
Shear	101 lb	2'8 3/8"	5798 lb	0.017 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.001 (L/66968)	2'1 7/8"	0.117 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/44165)	2'1 3/4"	0.175 (L/240)	0.010 (1%)	D+L	L

Design Notes

1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
2 Fill all hanger nailing holes.
3 Girders are designed to be supported on the bottom edge only.
4 Top braced at bearings.
5 Bottom braced at bearings.

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-10-8	(Span)0-8-9	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 3-10-8	(Span)0-7-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	3-7-6		Top	242 lb	539 lb	0 lb	0 lb	C3
	Self Weight				5 PLF				

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Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

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

This design is valid until 7/10/2021

Manufacturer Info
Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

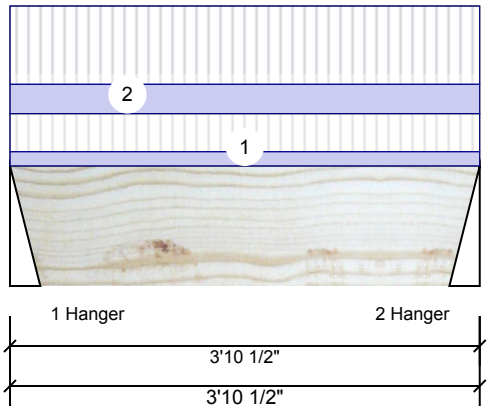
isDesign™

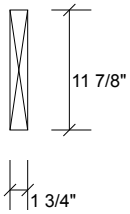
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F2-B Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Ground Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	115	52	0	0
2	115	52	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	6%	66 / 173	238	L	1.25D+1.5L
2 - Hanger	3.000"	6%	66 / 173	238	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	188 ft-lb	1'11 1/4"	17130 ft-lb	0.011 (1%)	1.25D+1.5L	L
Unbraced	188 ft-lb	1'11 1/4"	12574 ft-lb	0.015 (1%)	1.25D+1.5L	L
Shear	93 lb	1'2 1/8"	5798 lb	0.016 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.001 (L/45885)	1'11 1/4"	0.117 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/31535)	1'11 1/4"	0.175 (L/240)	0.010 (1%)	D+L	L

Design Notes

1 Fill all hanger nailing holes.
2 Girders are designed to be supported on the bottom edge only.
3 Top braced at bearings.
4 Bottom braced at bearings.

LICENSED PROFESSIONAL ENGINEER
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100528832
PROVINCE OF ONTARIO
December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-10-8	(Span)0-11-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 3-10-8		Top	15 PLF	40 PLF	0 PLF	0 PLF	
	Self Weight				5 PLF				

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

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

This design is valid until 7/10/2021

Manufacturer Info

Forex
APA: PR-L318

Kott Lumber Company
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NASCOR

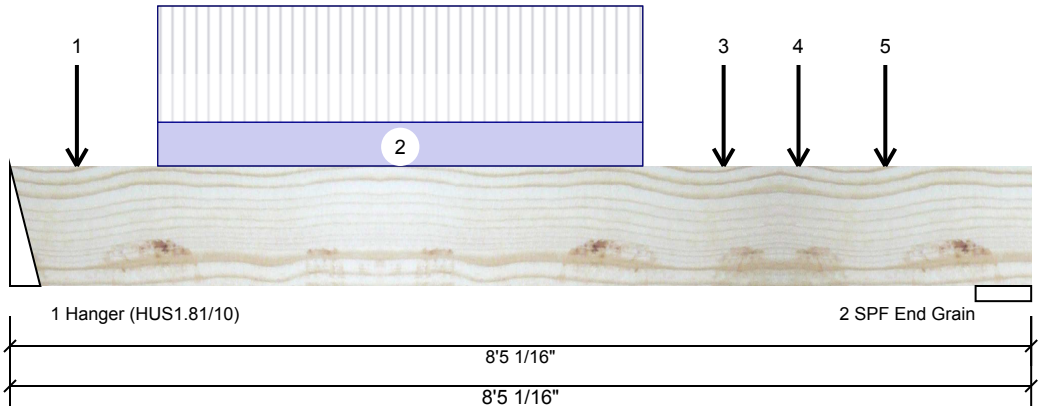
isDesign™

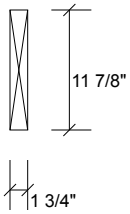
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F5-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Ground Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	404	181	0	0
2	704	324	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	21%	227 / 607	833	L	1.25D+1.5L
2 - SPF End Grain	5.500"	20%	405 / 1055	1460	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2193 ft-lb	5'10 5/8"	17130 ft-lb	0.128 (13%)	1.25D+1.5L	L
Unbraced	2193 ft-lb	5'10 5/8"	5736 ft-lb	0.382 (38%)	1.25D+1.5L	L
Shear	1452 lb	7' 7/16"	5798 lb	0.250 (25%)	1.25D+1.5L	L
Perm Defl in.	0.013 (L/7131)	4'5 9/16"	0.261 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.029 (L/3217)	4'5 7/16"	0.261 (L/360)	0.110 (11%)	L	L
TL Defl inch	0.042 (L/2217)	4'5 1/2"	0.392 (L/240)	0.110 (11%)	D+L	L

Design Notes

1 Fill all hanger nailing holes.
2 Girders are designed to be supported on the bottom edge only.
3 Top braced at bearings.
4 Bottom braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	
1	Point	0-6-10		Far Face	30 lb	79 lb	0 lb	0 lb	
2	Part. Uniform	1-2-10 to 5-2-10		Far Face	29 PLF	77 PLF	0 PLF	0 PLF	
3	Point	5-10-10		Far Face	28 lb	76 lb	0 lb	0 lb	J1
4	Point	6-6-0		Far Face	266 lb	580 lb	0 lb	0 lb	F2
5	Point	7-2-10		Far Face	25 lb	65 lb	0 lb	0 lb	J1
	Self Weight				5 PLF				

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LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
December 18, 2018

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

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

This design is valid until 7/10/2021

Manufacturer Info

Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

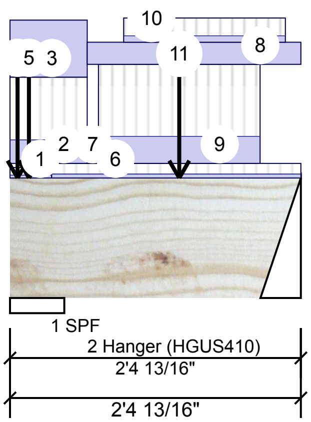
isDesign™

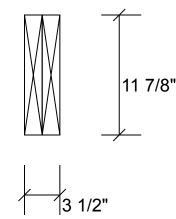
Client:	GREEN YORK HOMES	Date:	12/14/2018
Project:		Designer:	RCO
Address:		Job Name:	LOT 10 (CELESTIAL 2 2)
		Project #:	

Page 1 of 2

F6-C Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	2716	1180	0	0
2	314	165	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.375"	52%	1474 / 4075	5549	L	1.25D+1.5L
2 - Hanger	4.000"	7%	206 / 471	677	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	396 ft-lb	1'4 3/4"	34261 ft-lb	0.012 (1%)	1.25D+1.5L	L
Unbraced	396 ft-lb	1'4 3/4"	34261 ft-lb	0.012 (1%)	1.25D+1.5L	L
Shear	337 lb	1'1 11/16"	11596 lb	0.029 (3%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.001 (L/33790)	1'4 3/4"	0.058 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.001 (L/23170)	1'4 3/4"	0.087 (L/240)	0.010 (1%)	D+L	L

December 18, 2018

Design Notes

1. Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
2. Fill all hanger nailing holes.
3. Girders are designed to be supported on the bottom edge only.
4. Multiple plies must be fastened together as per manufacturer's details.
5. Top loads must be supported equally by all plies.
6. Top braced at bearings.
7. Bottom braced at bearings.
8. Lateral slenderness ratio based on full section width.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-2	(Span)0-6-7	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-7-10		Top	33 PLF	88 PLF	0 PLF	0 PLF	J5
3	Part. Uniform	0-0-0 to 0-7-10		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight

Continued on page 2...

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

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

This design is valid until 7/10/2021

Manufacturer Info
Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

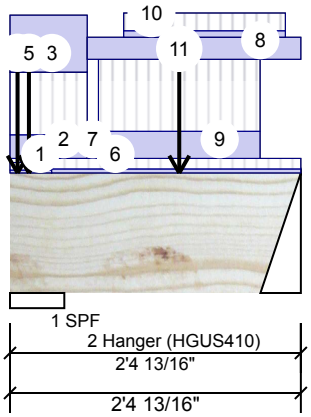
isDesign™

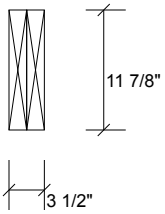
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F6-C Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
4	Point	0-0-12		Far Face	92 lb	245 lb	0 lb	0 lb	J5
5	Point	0-1-14		Top	901 lb	2190 lb	0 lb	0 lb	F9 F9
6	Tie-In	0-4-2 to 2-4-13	(Span)0-8-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	0-7-10 to 0-8-12		Top	13 PLF	34 PLF	0 PLF	0 PLF	J5
8	Part. Uniform	0-7-10 to 2-4-13		Top	31 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
9	Part. Uniform	0-8-12 to 2-0-12		Top	38 PLF	101 PLF	0 PLF	0 PLF	J5
10	Part. Uniform	0-11-4 to 2-3-4		Top	9 PLF	25 PLF	0 PLF	0 PLF	J1
11	Point	1-4-12		Far Face	125 lb	334 lb	0 lb	0 lb	J5
	Self Weight				10 PLF				

December 18, 2018

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Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

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
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5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info

Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

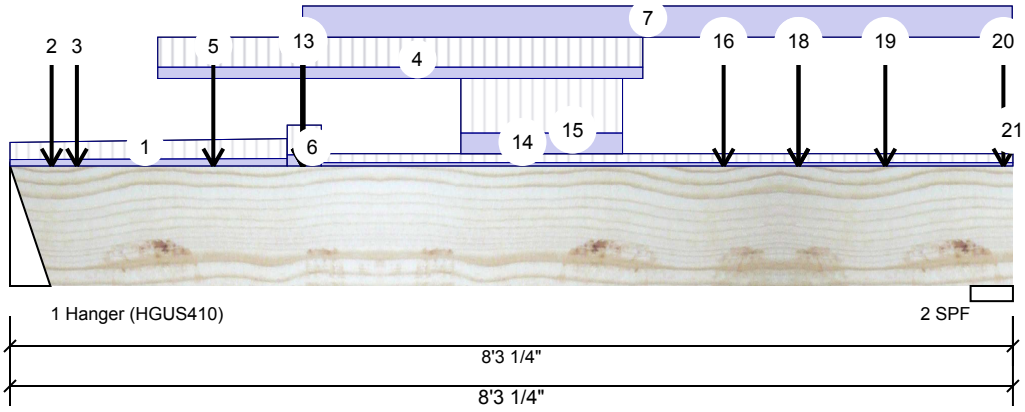
isDesign™

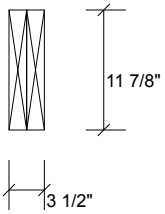
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F7-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	1104	727	0	0
2	996	792	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	4.000"	25%	909 / 1656	2565	L	1.25D+1.5L
2 - SPF	4.192"	28%	990 / 1494	2484	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4916 ft-lb	3'9 11/16"	34261 ft-lb	0.143 (14%)	1.25D+1.5L	L
Unbraced	4916 ft-lb	3'9 11/16"	31493 ft-lb	0.156 (16%)	1.25D+1.5L	L
Shear	2429 lb	1'3 1/8"	11596 lb	0.209 (21%)	1.25D+1.5L	L
Perm Defl in.	0.021 (L/4424)	4' 5/8"	0.257 (L/360)	0.080 (8%)	D	Uniform
LL Defl inch	0.028 (L/3294)	4' 1/16"	0.257 (L/360)	0.110 (11%)	L	L
TL Defl inch	0.049 (L/1888)	4' 5/16"	0.386 (L/240)	0.130 (13%)	D+L	L

Design Notes

1 Fill all hanger nailing holes.
2 Girders are designed to be supported on the bottom edge only.
3 Multiple plies must be fastened together as per manufacturer's details.
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5 Top braced at bearings.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on full section width.

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December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-3-7	(Span)2-2-7 to 2-6-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-4-2		Far Face	15 lb	39 lb	0 lb	0 lb	J1
3	Point	0-6-10		Near Face	30 lb	79 lb	0 lb	0 lb	J1
4	Part. Uniform	1-2-10 to 5-2-10		Near Face	29 PLF	77 PLF	0 PLF	0 PLF	
5	Point	1-8-2		Far Face	17 lb	44 lb	0 lb	0 lb	J1

Continued on page 2...

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

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

This design is valid until 7/10/2021

Manufacturer Info
Forex
Forex Formula

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

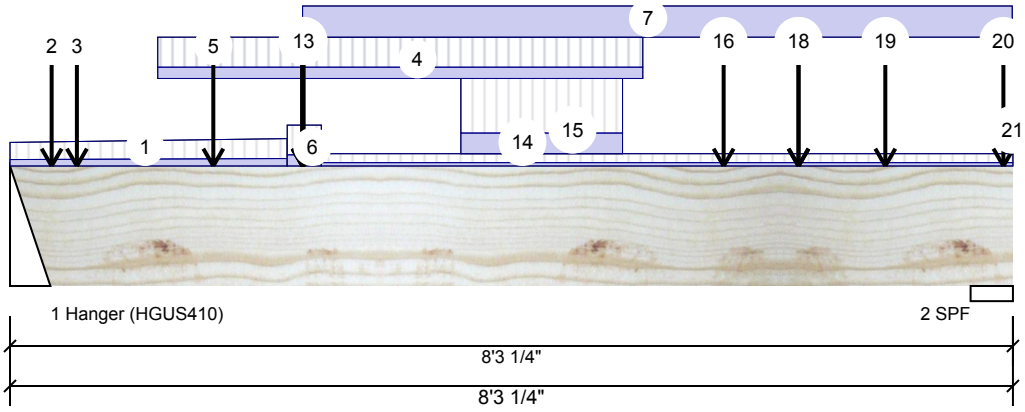
isDesign™

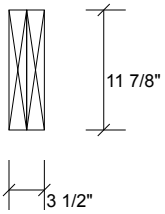
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F7-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor





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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Tie-In	2-3-7 to 2-6-13	(Span)3-9-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
7	Part. Uniform	2-4-15 to 8-3-3		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
8	Point	2-4-15		Top	79 lb	211 lb	0 lb	0 lb	J5
9	Point	2-4-15		Top	20 lb	52 lb	0 lb	0 lb	J1
10	Point	2-4-15		Top	2 lb	5 lb	0 lb	0 lb	J5
11	Point	2-4-15		Top	86 lb	0 lb	0 lb	0 lb	Wall Self Weight
12	Point	2-4-15		Top	12 lb	0 lb	0 lb	0 lb	Wall Self Weight
13	Point	2-5-1		Far Face	165 lb	314 lb	0 lb	0 lb	F6
14	Tie-In	2-6-13 to 8-3-4	(Span)1-1-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
15	Part. Uniform	3-8-10 to 5-0-10		Top	53 PLF	140 PLF	0 PLF	0 PLF	J3
16	Point	5-10-10		Near Face	28 lb	76 lb	0 lb	0 lb	J1
17	Point	6-6-0		Top	141 lb	322 lb	0 lb	0 lb	F10 F10
18	Point	6-6-0		Near Face	33 lb	62 lb	0 lb	0 lb	F2
19	Point	7-2-10		Near Face	25 lb	65 lb	0 lb	0 lb	J1
20	Point	8-2-5		Near Face	34 lb	75 lb	0 lb	0 lb	F2
21	Part. Uniform	8-3-3 to 8-3-4		Top	40 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
	Self Weight				10 PLF				

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO

December 18, 2018

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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

This design is valid until 7/10/2021

Manufacturer Info

Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

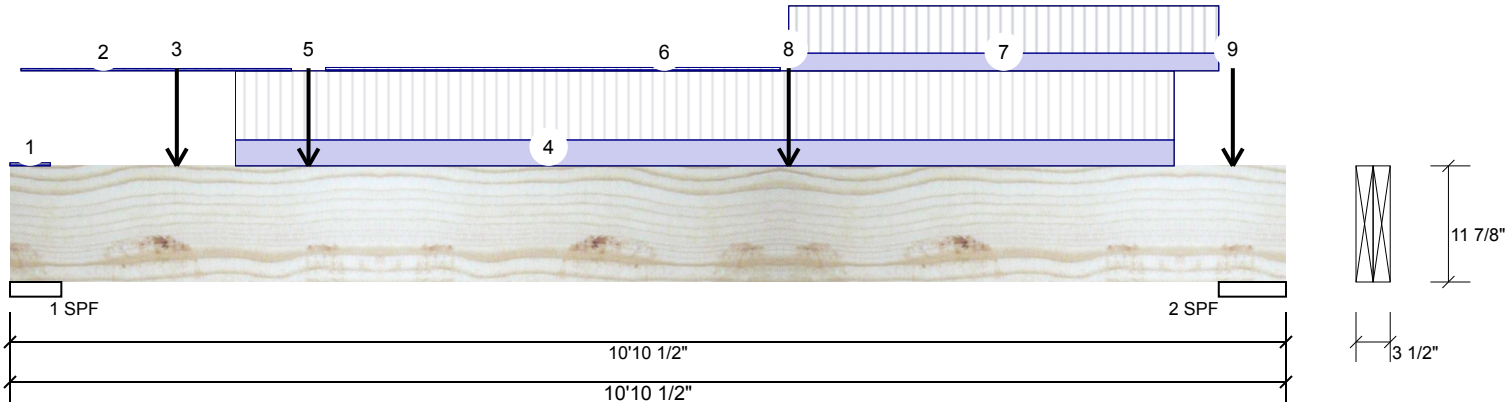
isDesign™

Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F8-B Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	3024	1441	0	0
2	3159	1322	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	56%	1801 / 4536	6337	L	1.25D+1.5L
2 - SPF	6.875"	43%	1653 / 4738	6391	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	16170 ft-lb	5'6 1/16"	34261 ft-lb	0.472 (47%)	1.25D+1.5L	L
Unbraced	16170 ft-lb	5'6 1/16"	29618 ft-lb	0.546 (55%)	1.25D+1.5L	L
Shear	6713 lb	1'4 3/8"	11596 lb	0.579 (58%)	1.25D+1.5L	L
Perm Defl in.	0.076 (L/1587)	5'3 11/16"	0.333 (L/360)	0.230 (23%)	D	Uniform
LL Defl inch	0.171 (L/703)	5'4 5/8"	0.333 (L/360)	0.510 (51%)	L	L
TL Defl inch	0.246 (L/487)	5'4 3/8"	0.499 (L/240)	0.490 (49%)	D+L	L

Design Notes

1 Girders are designed to be supported on the bottom edge only.
2 Multiple plies must be fastened together as per manufacturer's details.
3 Top loads must be supported equally by all plies.
4 Top braced at bearings.
5 Bottom braced at bearings.
6 Lateral slenderness ratio based on full section width.

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December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-4-2	(Span)0-7-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-1-2 to 2-4-13	(Span)0-5-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-5-1		Near Face	151 lb	402 lb	0 lb	0 lb	J8
4	Part. Uniform	1-11-1 to 9-11-1		Near Face	148 PLF	395 PLF	0 PLF	0 PLF	
5	Point	2-6-9		Far Face	727 lb	1104 lb	0 lb	0 lb	F7
6	Tie-In	2-8-5 to 6-6-12	(Span)0-8-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Continued on page 2...

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
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6. For flat roofs provide proper drainage to prevent ponding

Pass-Thru Framing Squash Block is required at all point loads over bearings

Manufacturer info
Forex
APA: PR-L318

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

This design is valid until 7/10/2021

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

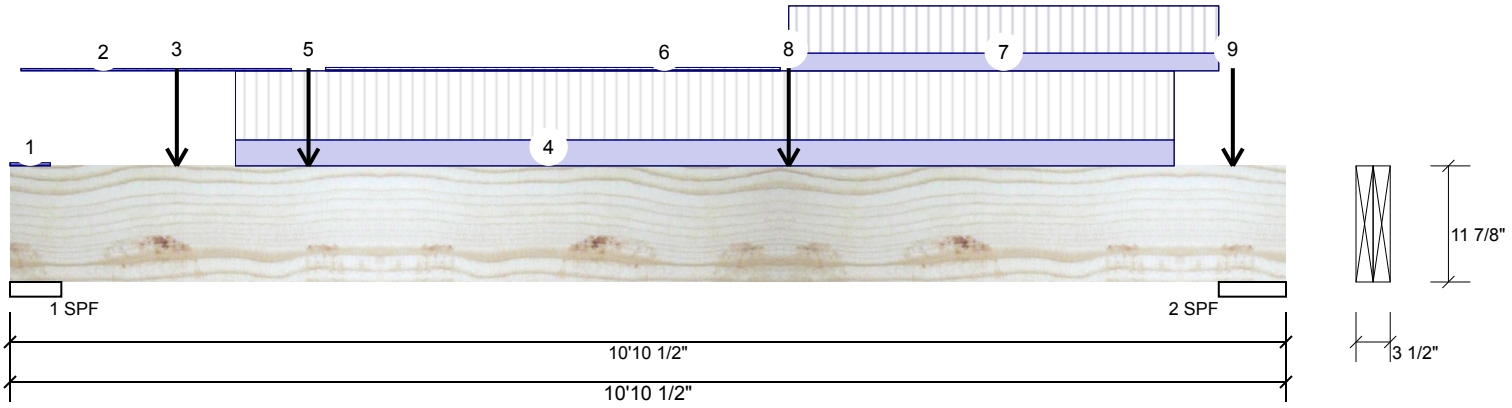
isDesign™

Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F8-B Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Part. Uniform	6-7-10 to 10-3-10		Top	101 PLF	270 PLF	0 PLF	0 PLF	
8	Point	6-7-10		Far Face	181 lb	404 lb	0 lb	0 lb	F5
9	Point	10-5-1		Near Face	16 lb	42 lb	0 lb	0 lb	J8
	Self Weight				10 PLF				

December 18, 2018

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

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

This design is valid until 7/10/2021

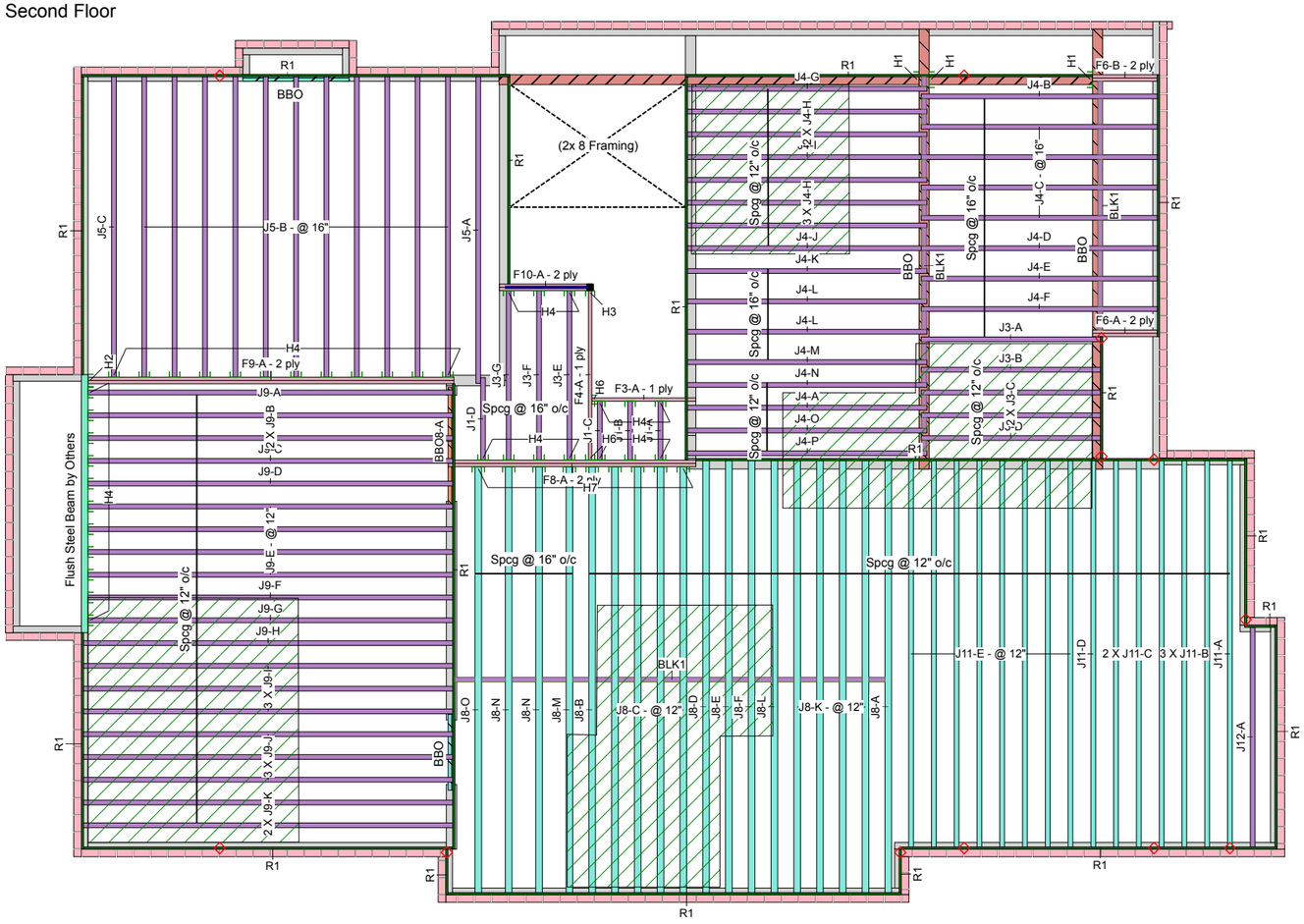
Manufacturer Info

Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

Second Floor



This certification is to confirm that:
1. The loads used in the calculation of the attached approved components conform to the floor assembly shown on this layout.
2. The floor joists comply with the KOTT span table for the loads and spacing shown on this layout.
The floor system must be assembled in accordance to the KOTT Specifier Guide. Multi-ply members must be attached together as per the included multiple member connection detail.
All other components and structural elements supporting the floor system such as beams, walls, columns and foundation walls and footings including anchorage of components and bracing for lateral stability are the responsibility of others.

December 18, 2018

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP INC.
64 Jardin Dr., Suite 3A, Vaughan, ON
Date: Rev.5; Aug.30,2018
Project No: 17-55
Model: Celestial 2

Legend

◇	Load from Above
	Wall
	Norbord Rimboard Plus 1.125 X 11.875
	LPI 20Plus 11.875
	NJ60H 11.875
	NJ60U 11.875
	Forex 2.0E-3000Fb LVL 1.75 X 9.5 (Dropped)
	Forex 2.0E-3000Fb LVL 1.75 X 11.875

1. OBC 2012 O.Reg 332/12 as amended
2. Nascor CCMC - 13535-R
3. LVL CCMC -14056-R
4. CAN/CSA-O86-09
5. CCMC -12787-R APA PR-L310(C)

Second Floor
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F9	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	18-0-0
F8	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	12-0-0
F4	Forex 2.0E-3000Fb LVL	1.75	11.875			1	8-0-0
F10	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	6-0-0
F3	Forex 2.0E-3000Fb LVL	1.75	11.875			1	6-0-0
F6	Forex 2.0E-3000Fb LVL	1.75	11.875	2	2	4	4-0-0

LVL/LSL (Dropped)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BBO8	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	6-0-0

I Joist (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
J9	LPI 20Plus	2.5	11.875			20	18-0-0
J5	LPI 20Plus	2.5	11.875			13	14-0-0
J4	LPI 20Plus	2.5	11.875			24	12-0-0
J12	LPI 20Plus	2.5	11.875			1	10-0-0
J3	LPI 20Plus	2.5	11.875			8	8-0-0
J1	LPI 20Plus	2.5	11.875			4	4-0-0
J11	NJ60H	2.5	11.875			15	18-0-0
J8	NJ60U	3.5	11.875			18	20-0-0

Rim Board

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875			19	12

Blocking

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BLK1	LPI 20 Plus	2.5	11.875	LinFt		Varies	33-0-0

Hanger

Label	Pcs	Description	Skew	Slope	Beam/Girder fasteners	Supported Member fasteners
H1	3	Unknown Hanger				
H2	1	HGUS410			46 16d	16 16d
H3	1	HUCQ1.81/9-SDS				
H4	36	LT251188			4 10dx1 1/2	2 10dx1 1/2
H6	2	HUS1.81/10			30 10dx1 1/2	10 16d
H7	9	LT351188			4 10dx1 1/2	2 10dx1 1/2

NOTES:

1. Framer to verify dimensions on the architectural drawings.
2. Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.
3. Install 2x4 blocking @ 24" o/c under parallel non-load bearing walls.
4. Install single-ply flush window header along inside face of rimboard/rimjoist.
5. Refer to Nascor specifier guide for installation works.
6. Squash blocks recommended to be installed at end bearing on all first level joists which support loading from above exceeding two levels floor or roof.
7. Load transfer blocks to be installed under all point loads.
8. It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

Refer to Multiple Member Connection Detail to ply to ply nailing or bolting requirements.

Rim parallel to joists: 1-1/8" rimboard with 2"x 4" block (1/16" longer than rim depth @ 16" o/c). All other components and structural elements supporting the floor system such as beams, walls, columns, and foundation walls and footings including anchorage of components and bracing for lateral stability are the responsibility of Others.

Hatch area represents ceramic tiled floor with an addtional dead load of 5 PSF

The framing shown on this layout may deviate from the architectural and structural drawings. Project Engineer to review and approve the deviation prior to construction.

Layout Name
LOT 10 (CELESTIAL 2 2)

Design Method
LSD

Revised
December 14, 2018

Description
GRANELLI HOME CORP.
BRAMPTON, ONT.

Builder
GREEN YORK HOMES

Sales Rep
RM

Designer
RCO

Shipping

Project

Builder's Project

Kott Lumber Company
14 Anderson Blvd
Stouffville, Ontario
Canada
L4A 7X4
905-642-4400

Job Path
D:\Users\rochavillo\WORK FROM HOME\GREEN YORK HOMES \GRANELLI HOME CORP\MODELS \LOT 10 (CELESTIAL 2 ELEV.2) \FLOOR\LOT 10 (CELESTIAL 2 2).isl

Second Floor

Design Method	LSD
Building Code	NBCC 2010 / OBC 2012

Floor

Loads	
Live	40
Dead	15
Deflection Joist	
LL Span L/	360
TL Span L/	360
LL Cant 2L/	480
TL Cant 2L/	360
Deflection Girder	
LL Span L/	360
TL Span L/	240
LL Cant 2L/	480
TL Cant 2L/	360
Decking	
Deck	SPF Plywood
Thickness	5/8"
Fastener	Nailed & Glued
Vibration	
Ceiling:	Gypsum 1/2"

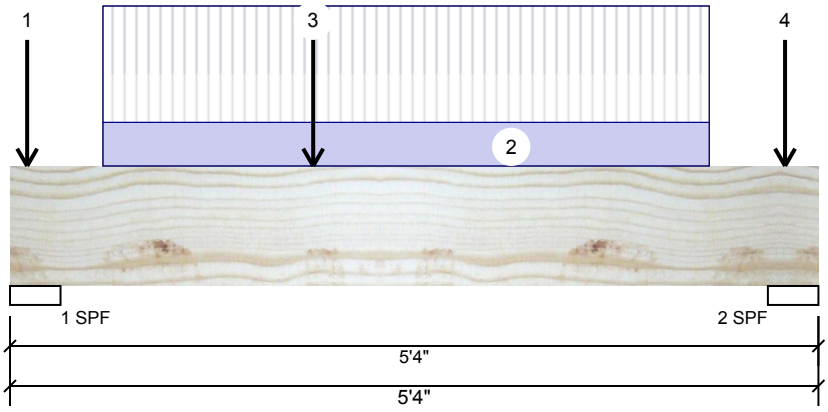
isDesign™

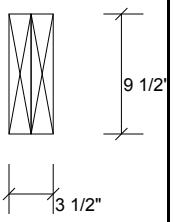
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

BBO8-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	2317	939	0	0
2	1592	645	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.000"	54%	1174 / 3476	4650	L	1.25D+1.5L
2 - SPF	4.000"	37%	807 / 2388	3194	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	6964 ft-lb	2'	22724 ft-lb	0.306 (31%)	1.25D+1.5L	L
Unbraced	6964 ft-lb	2'	22724 ft-lb	0.306 (31%)	1.25D+1.5L	L
Shear	4095 lb	1' 3/4"	9277 lb	0.441 (44%)	1.25D+1.5L	L
Perm Defl in.	0.014 (L/4009)	2'3 9/16"	0.160 (L/360)	0.090 (9%)	D	Uniform
LL Defl inch	0.035 (L/1625)	2'3 9/16"	0.160 (L/360)	0.220 (22%)	L	L
TL Defl inch	0.050 (L/1156)	2'3 9/16"	0.240 (L/240)	0.210 (21%)	D+L	L

Design Notes

1 Performed Secondary Bearing Check (CSA 086-14 6.5.7.3). Assumed point load size: beam width X 4.5.
2 Girders are designed to be supported on the bottom edge only.
3 Multiple plies must be fastened together as per manufacturer's details.
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 full section width.

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-1-6		Top	50 lb	133 lb	0 lb	0 lb	J9
2	Part. Uniform	0-7-6 to 4-7-6		Top	120 PLF	320 PLF	0 PLF	0 PLF	
3	Point	2-0-0		Top	976 lb	2394 lb	0 lb	0 lb	F8
4	Point	5-1-6		Top	38 lb	102 lb	0 lb	0 lb	J9
	Self Weight				8 PLF				

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

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

This design is valid until 7/10/2021

Manufacturer Info

Species: APA PRI-410

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

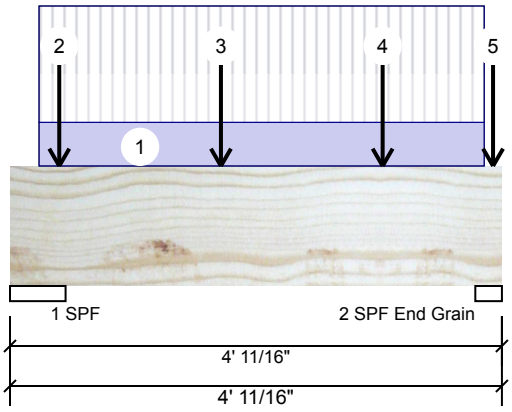
isDesign™

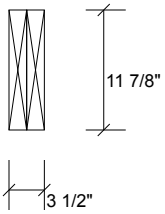
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F10-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	322	141	0	0
2	539	242	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.500"	6%	176 / 483	660	L	1.25D+1.5L
2 - SPF End Grain	2.632"	16%	302 / 808	1110	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	673 ft-lb	1'8 7/8"	34261 ft-lb	0.020 (2%)	1.25D+1.5L	L
Unbraced	673 ft-lb	1'8 7/8"	34261 ft-lb	0.020 (2%)	1.25D+1.5L	L
Shear	530 lb	2'10 15/16"	11596 lb	0.046 (5%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/60821)	2' 1/2"	0.117 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.002 (L/25507)	2' 1/4"	0.117 (L/360)	0.010 (1%)	L	L
TL Defl inch	0.002 (L/17971)	2' 3/8"	0.175 (L/240)	0.010 (1%)	D+L	L

Design Notes

1 Girders are designed to be supported on the bottom edge only.
2 Multiple plies must be fastened together as per manufacturer's details.
3 Top loads must be supported equally by all plies.
4 Top braced at bearings.
5 Bottom braced at bearings.
6 Lateral slenderness ratio based on full section width.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-2-14 to 3-10-15		Top	30 PLF	80 PLF	0 PLF	0 PLF	
2	Point	0-4-14		Near Face	3 lb	8 lb	0 lb	0 lb	J3
3	Point	1-8-14		Near Face	74 lb	198 lb	0 lb	0 lb	J3
4	Point	3-0-14		Near Face	63 lb	167 lb	0 lb	0 lb	J3
5	Point	3-11-13		Near Face	94 lb	194 lb	0 lb	0 lb	F4
	Self Weight				10 PLF				

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

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

This design is valid until 7/10/2021

Manufacturer Info
Forex
APA: PRL316

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
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905-642-4400

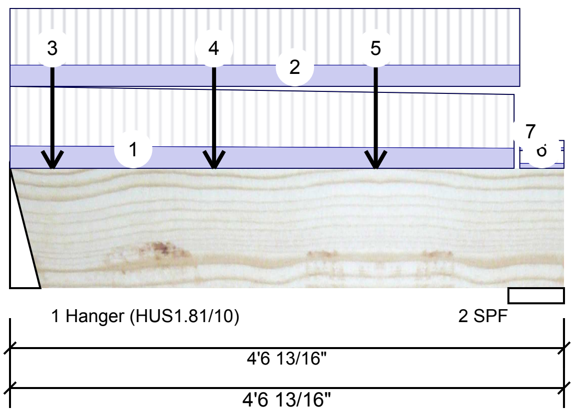
NASCOR

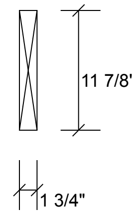
isDesign™

Client:	GREEN YORK HOMES	Date:	12/14/2018
Project:		Designer:	RCO
Address:		Job Name:	LOT 10 (CELESTIAL 2 2)
		Project #:	

F3-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Second Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	351	142	0	0
2	303	125	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	18%	178 / 527	705	L	1.25D+1.5L
2 - SPF	5.500"	10%	156 / 454	610	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	632 ft-lb	2'1 1/8"	17130 ft-lb	0.037 (4%)	1.25D+1.5L	L
Unbraced	632 ft-lb	2'1 1/8"	11283 ft-lb	0.056 (6%)	1.25D+1.5L	L
Shear	433 lb	1'2 1/8"	5798 lb	0.075 (7%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/32806)	2'1 13/16"	0.133 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.004 (L/13295)	2'1 3/4"	0.133 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.005 (L/9461)	2'1 3/4"	0.199 (L/240)	0.030 (3%)	D+L	L

December 18, 2018

Design Notes

1 Fill all hanger nailing holes.
2 Girders are designed to be supported on the bottom edge only.
3 Top braced at bearings.
4 Bottom braced at bearings.

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 4-1-14	(Span)2-11-6 to 2-7-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 4-2-7	(Span)2-9-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	0-4-3		Near Face	17 lb	45 lb	0 lb	0 lb	J1
4	Point	1-8-3		Near Face	26 lb	69 lb	0 lb	0 lb	J1
5	Point	3-0-3		Near Face	24 lb	64 lb	0 lb	0 lb	J1
6	Tie-In	4-2-7 to 4-6-13	(Span)0-7-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	

Continued on page 2...

Pass-Thru Framing Squash Block is required at all point loads over bearings

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

This design is valid until 7/10/2021

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

Manufacturer Info
Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

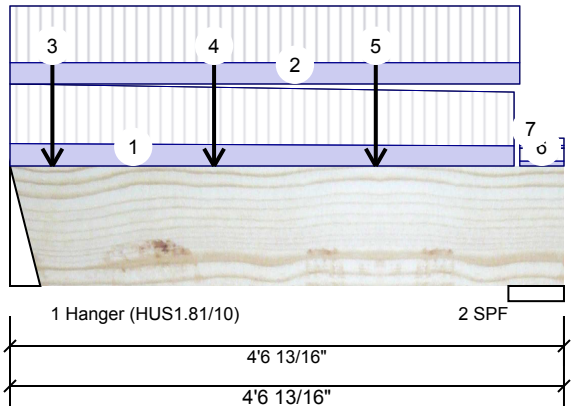
isDesign™

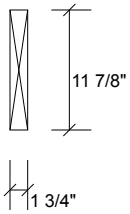
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F3-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Second Floor





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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Tie-In	4-2-7 to 4-6-13	(Span)0-4-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				5 PLF				

December 18, 2018

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Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

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

This design is valid until 7/10/2021

Manufacturer Info

Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

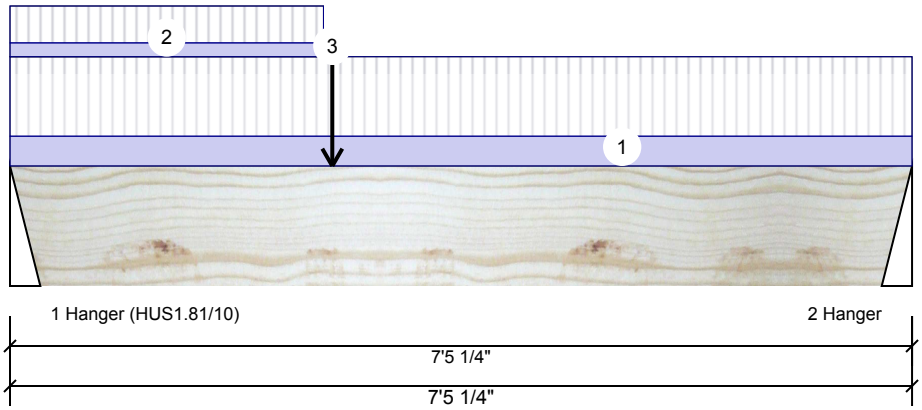
isDesign™

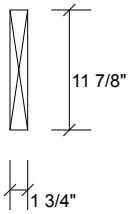
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F4-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" - PASSED

Level: Second Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	314	142	0	0
2	194	94	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	17%	178 / 472	650	L	1.25D+1.5L
2 - Hanger	3.000"	10%	118 / 291	408	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1399 ft-lb	2'7 7/8"	17130 ft-lb	0.082 (8%)	1.25D+1.5L	L
Unbraced	1399 ft-lb	2'7 7/8"	6365 ft-lb	0.220 (22%)	1.25D+1.5L	L
Shear	581 lb	1'2 1/8"	5798 lb	0.100 (10%)	1.25D+1.5L	L
Perm Defl in.	0.006 (L/13727)	3'2 7/8"	0.235 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.014 (L/6157)	3'2 3/16"	0.235 (L/360)	0.060 (6%)	L	L
TL Defl inch	0.020 (L/4251)	3'2 7/16"	0.353 (L/240)	0.060 (6%)	D+L	L

Design Notes

1 Fill all hanger nailing holes.
2 Girders are designed to be supported on the bottom edge only.
3 Top braced at bearings.
4 Bottom braced at bearings.

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	
1	Tie-In	0-0-0 to 7-5-4	(Span) 0-10-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 2-7-0	(Span)0-5-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	2-7-14		Near Face	142 lb	351 lb	0 lb	0 lb	F3
	Self Weight				5 PLF				

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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

This design is valid until 7/10/2021

Manufacturer Info

Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
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905-642-4400

NASCOR

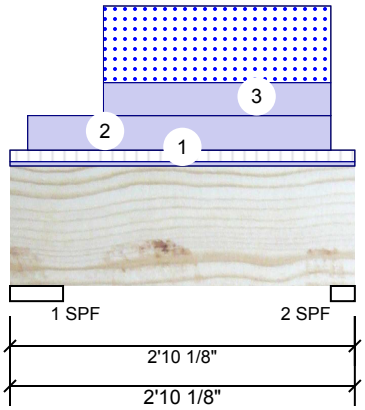
isDesign™

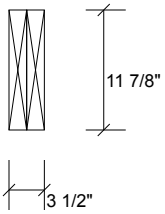
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F6-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	33	165	114	0
2	28	159	152	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	4%	207 / 188	394	L	1.25D+1.5S +0.5L
2 - SPF	2.375"	9%	199 / 242	441	L	1.25D+1.5S +0.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	262 ft-lb	1'6 13/16"	33575 ft-lb	0.008 (1%)	1.25D+1.5S +0.5L	L
Unbraced	262 ft-lb	1'6 13/16"	33575 ft-lb	0.008 (1%)	1.25D+1.5S +0.5L	L
Shear	81 lb	1'4 3/8"	11364 lb	0.007 (1%)	1.25D+1.5S +0.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.001 (L/38560)	1'6 3/4"	0.117 (L/240)	0.010 (1%)	D+S+0.5L	L

Design Notes

1 Girders are designed to be supported on the bottom edge only.
2 Multiple plies must be fastened together as per manufacturer's details.
3 Top loads must be supported equally by all plies.
4 Top braced at bearings.
5 Bottom braced at bearings.
6 Lateral slenderness ratio based on full section width.

LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-10-2	(Span)1-0-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-1-12 to 2-7-12		Top	64 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Part. Uniform	0-9-4 to 2-7-12		Top	61 PLF	0 PLF	142 PLF	0 PLF	
	Self Weight				10 PLF				

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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

This design is valid until 7/10/2021

Manufacturer Info
Forex
APA: PR-L318

Katt Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

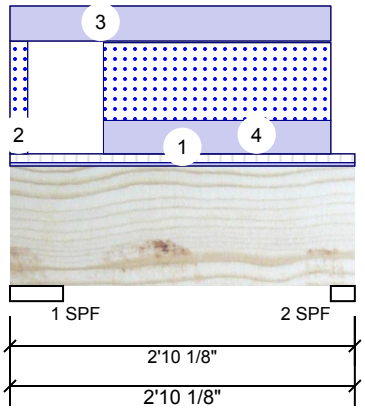
isDesign™

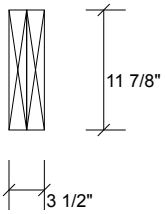
Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F6-B Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor





Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	25	181	135	0
2	21	156	152	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	4%	226 / 215	441	L	1.25D+1.5S +0.5L
2 - SPF	2.375"	9%	195 / 239	434	L	1.25D+1.5S +0.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	258 ft-lb	1'6 13/16"	33575 ft-lb	0.008 (1%)	1.25D+1.5S +0.5L	L
Unbraced	258 ft-lb	1'6 13/16"	33575 ft-lb	0.008 (1%)	1.25D+1.5S +0.5L	L
Shear	80 lb	1'4 3/8"	11364 lb	0.007 (1%)	1.25D+1.5S +0.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.001 (L/39192)	1'6 3/4"	0.117 (L/240)	0.010 (1%)	D+S+0.5L	L

Design Notes

1 Girders are designed to be supported on the bottom edge only.
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December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 2-10-2	(Span)0-9-11	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-1-12		Top	62 PLF	0 PLF	144 PLF	0 PLF	
3	Part. Uniform	0-0-0 to 2-7-12		Top	64 PLF	0 PLF	0 PLF	0 PLF	Wall self-weight
4	Part. Uniform	0-9-4 to 2-7-12		Top	61 PLF	0 PLF	142 PLF	0 PLF	
	Self Weight				10 PLF				

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

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

This design is valid until 7/10/2021

Manufacturer Info

Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR

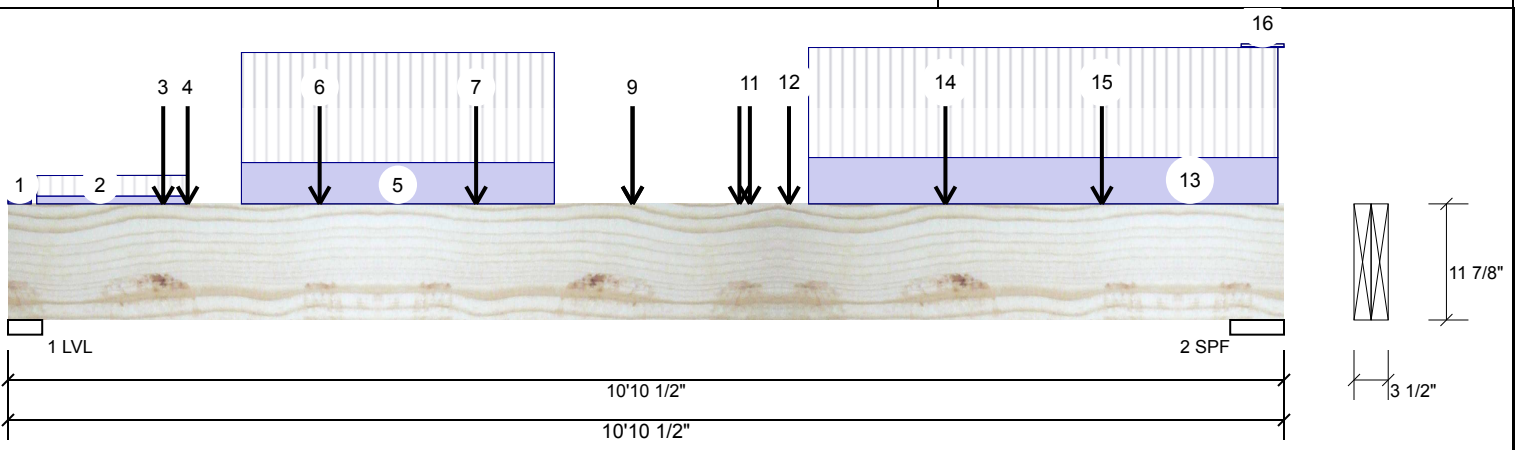
isDesign™

Client: GREEN YORK HOMES
Project:
Address:

Date: 12/14/2018
Designer: RCO
Job Name: LOT 10 (CELESTIAL 2 2)
Project #:

F8-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	2394	976	0	0
2	2576	1098	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - LVL	3.500"	53%	1219 / 3591	4810	L	1.25D+1.5L
2 - SPF	5.500"	44%	1372 / 3864	5236	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	13924 ft-lb	5'3 7/8"	34261 ft-lb	0.406 (41%)	1.25D+1.5L	L
Unbraced	13924 ft-lb	5'3 7/8"	29373 ft-lb	0.474 (47%)	1.25D+1.5L	L
Shear	5402 lb	1'2 5/8"	11596 lb	0.466 (47%)	1.25D+1.5L	L
Perm Defl in.	0.062 (L/1983)	5'4 1/16"	0.342 (L/360)	0.180 (18%)	D	Uniform
LL Defl inch	0.150 (L/820)	5'3 7/8"	0.342 (L/360)	0.440 (44%)	L	L
TL Defl inch	0.212 (L/580)	5'3 7/8"	0.512 (L/240)	0.410 (41%)	D+L	L

Design Notes

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LICENSED PROFESSIONAL ENGINEER
I.MATIJEVIC
100528832
PROVINCE OF ONTARIO
December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-2-6	(Span) 0-10-10	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-2-15 to 1-6-6	(Span)3-5-15 to 3-6-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-3-14		Near Face	169 lb	451 lb	0 lb	0 lb	J8
4	Point	1-6-6		Far Face	31 lb	83 lb	0 lb	0 lb	J1
5	Part. Uniform	1-11-14 to 4-7-14		Near Face	140 PLF	373 PLF	0 PLF	0 PLF	

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

Continued on page 2...

Notes

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Lumber

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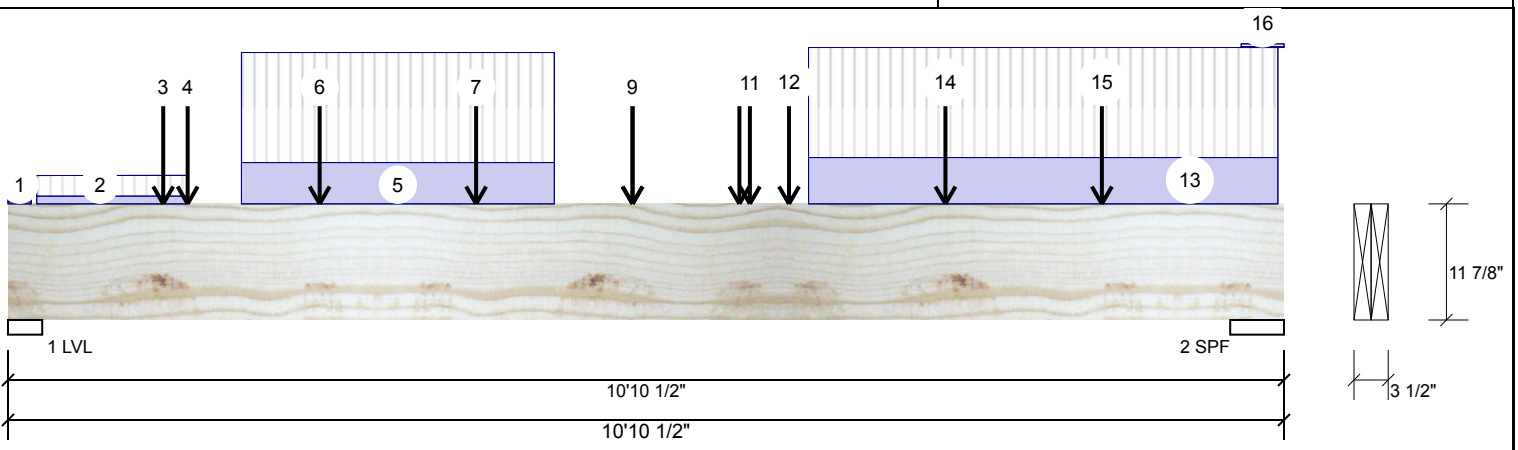
Level: Second Floor



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	2-7-14		Far Face	70 lb	187 lb	0 lb	0 lb	J3
7	Point	3-11-14		Far Face	74 lb	198 lb	0 lb	0 lb	J3
8	Point	5-3-14		Far Face	63 lb	167 lb	0 lb	0 lb	J3
9	Point	5-3-14		Near Face	167 lb	435 lb	0 lb	0 lb	J8
10	Point	6-2-13		Far Face	142 lb	314 lb	0 lb	0 lb	F4
11	Point	6-3-14		Near Face	149 lb	373 lb	0 lb	0 lb	J8
12	Point	6-7-14		Far Face	17 lb	45 lb	0 lb	0 lb	J1
13	Part. Uniform	6-9-14 to 10-9-14		Near Face	157 PLF	373 PLF	0 PLF	0 PLF	
14	Point	7-11-14		Far Face	26 lb	69 lb	0 lb	0 lb	J1
15	Point	9-3-14		Far Face	24 lb	64 lb	0 lb	0 lb	J1
16	Tie-In	10-6-2 to 10-10-8	(Span)0-5-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	Self Weight				10 PLF				

December 18, 2018

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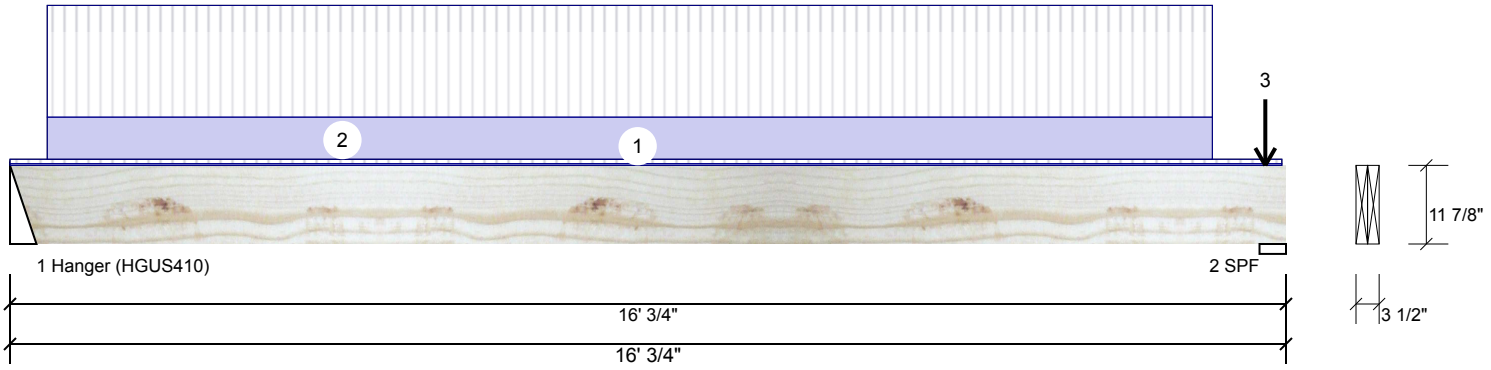
F9-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Second Floor



Member Information

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF		
Dead:	15 PSF		

Unfactored Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind
1	2070	856	0	0
2	2190	901	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	4.000"	40%	1070 / 3106	4175	L	1.25D+1.5L
2 - SPF	4.000"	51%	1126 / 3285	4411	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	16529 ft-lb	8' 1/4"	34261 ft-lb	0.482 (48%)	1.25D+1.5L	L
Unbraced	16529 ft-lb	8' 1/4"	23053 ft-lb	0.717 (72%)	1.25D+1.5L	L
Shear	4147 lb	14'9 5/8"	11596 lb	0.358 (36%)	1.25D+1.5L	L
Perm Defl in.	0.159 (L/1171)	8' 5/16"	0.517 (L/360)	0.310 (31%)	D	Uniform
LL Defl inch	0.387 (L/482)	8' 5/16"	0.517 (L/360)	0.750 (75%)	L	L
TL Defl inch	0.546 (L/341)	8' 5/16"	0.776 (L/240)	0.700 (70%)	D+L	L

Design Notes

1 Fill all hanger nailing holes.
2 Girders are designed to be supported on the bottom edge only.
3 Multiple plies must be fastened together as per manufacturer's details.
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 full section width.

LICENSED PROFESSIONAL ENGINEER
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PROVINCE OF ONTARIO

December 18, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 16-0-2	(Span)0-6-5	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-5-10 to 15-1-10		Far Face	99 PLF	263 PLF	0 PLF	0 PLF	
3	Point	15-9-10		Far Face	88 lb	234 lb	0 lb	0 lb	J5
	Self Weight				10 PLF				

READ ALL NOTES ON THIS PAGE AND ON THE ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE IS AN INTEGRAL PART OF THIS DRAWING AS IT CONTAINS SPECIFICATIONS AND CRITERIA USED IN THE DESIGN OF THIS COMPONENT.

Pass-Thru Framing Squash Block is required at all point loads over bearings

Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements

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

This design is valid until 7/10/2021

Manufacturer Info

Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
L4A 7X4
905-642-4400

NASCOR