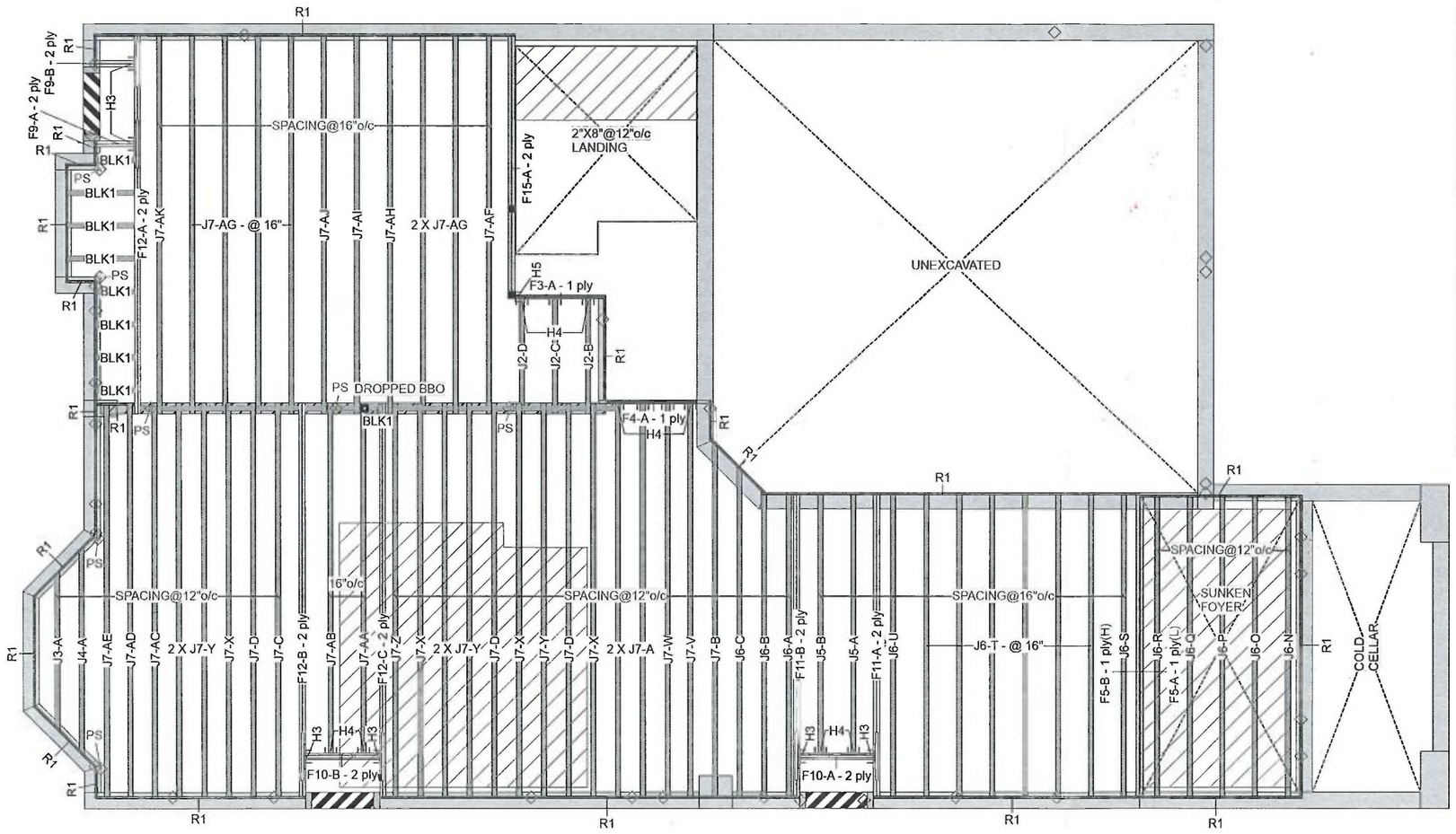
Ground Floor

Engineered floor joists shall be installed in accordance with the supplier's layout and specifications forming part of the permit drawing.

All work shall conform to the Ontario Building Code O. Reg. 332/12 as amended

CITY OF BRAMPTON
BUILDING DIVISION
REVIEWED
DEC 10 2018
BY
MARK DERKSEN



Ground Floor
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F5	Forex 2.0E-3000Fb LVL	1.75	11.875			2	14-0-0
F15	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	6-0-0
F3	Forex 2.0E-3000Fb LVL	1.75	11.875			1	4-0-0

I Joist (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F12	NJ	1.5	11.875	3	2	6	16-0-0
F11	NJ	1.5	11.875	2	2	4	14-0-0
F10	NJ	1.5	11.875	2	2	4	4-0-0
F9	NJ	1.5	11.875	2	2	4	2-0-0
J7	NJH	2.5	11.875			35	16-0-0
J6	NJH	2.5	11.875			16	14-0-0
J5	NJH	2.5	11.875			2	12-0-0
J4	NJH	2.5	11.875			1	10-0-0
J3	NJH	2.5	11.875			1	8-0-0
J2	NJH	2.5	11.875			3	6-0-0

Rim Board

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

Hanger

Label	Pcs	Description	Skew	Slope	Beam/Girder fasteners	Supported Member fasteners
H3	6	LT2-151188			4 10dx1 1/2	2 10dx1 1/2
H4	11	LT251188			4 10dx1 1/2	2 10dx1 1/2
H5	1	HUCQ1.81/9-SDS				

Blocking

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

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 frame'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"x4" 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 are represents ceramic tiled floor with an additional dead load of 5 PSF

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

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP INC.
64 Jardin Dr, Suite 3A
Date: Rev. 1, 4/26/2018
Project No: 2645
Model: Millwood 2, Elevation 1

Legend

PS	Point Load Support
◇	Load from Above
	Wall
	Wall Opening
	Norbord Rimboard Plus 1.125 X 11.875
	NJ 11.875
	NJH 11.875
	Forex 2.0E-3000Fb LVL 1.75 X 11.875

NASCOR

Layout Name: MILLWOOD 2-ELEV 1
Design Method: LSD
Description:
Created: June 25, 2018
Builder: GREENPARK
Sales Rep: R M
Designer: R O
Shipping:
Project:
Builder's Project:

Kott Lumber Company
14 Anderson Blvd
Stouffville, Ontario
Canada
K2H7V1
905-642-4400

Job Path: S:\CUSTOMERS\GREENPARK\MINNISALE HOMES\MODELS\MILLWOOD 2\FLOORS\ELEV 1\MILLWOOD 2-ELEV 1.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/: 240
Decking
Deck: SPF Plywood
Thickness: 3/4"
Fastener: Nailed & Glued
Vibration

Lot 23

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 Nascor span table for the loads and spacing shown on this layout.

The floor system must be assembled in accordance to the Nascor 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
T.L. WISE
100083566
PROVINCE OF ONTARIO

September 13, 2018

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)

KOTT

18-331277-000-00 RR_FLOOR

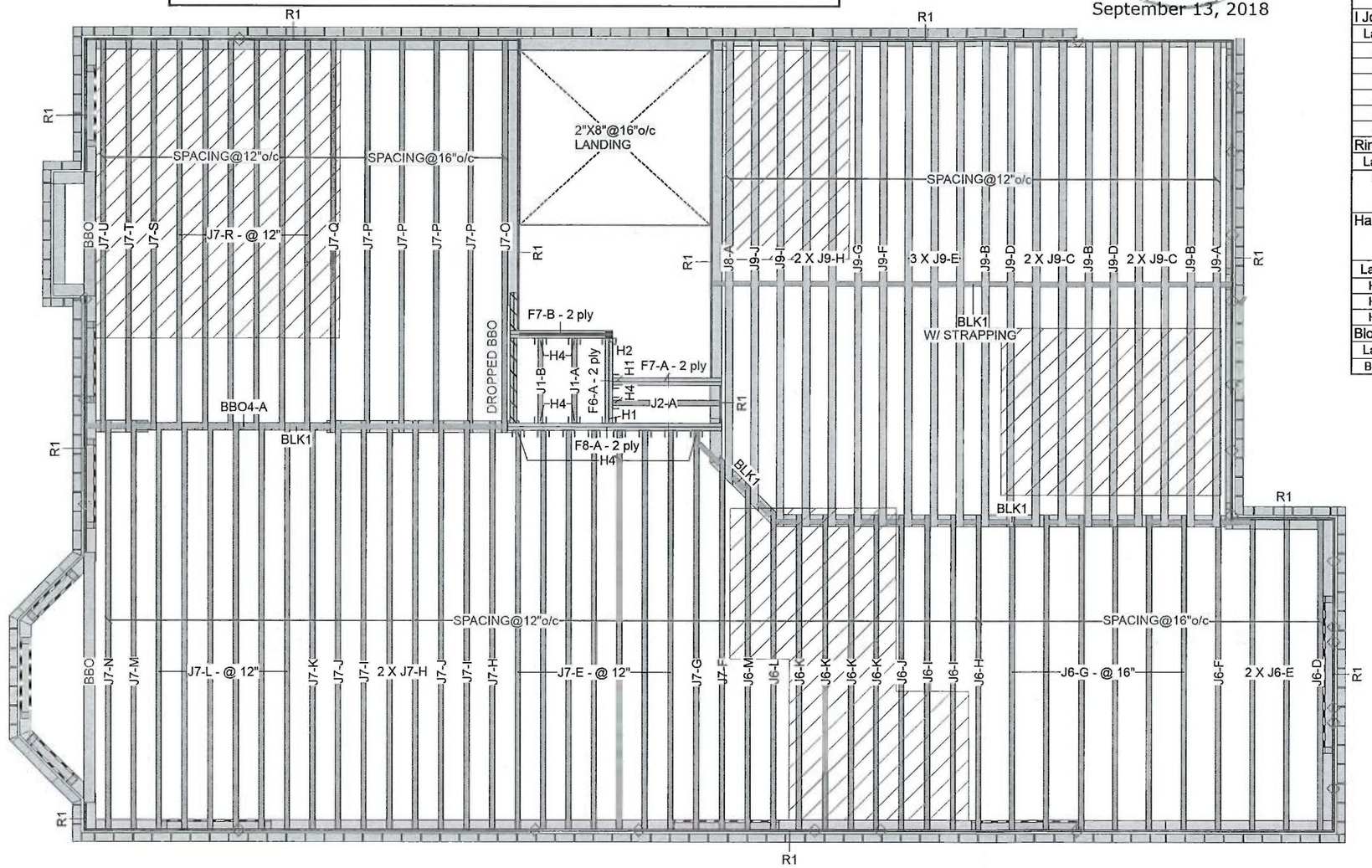
Second Floor

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 Nascor span table for the loads and spacing shown on this layout.

The floor system must be assembled in accordance to the Nascor 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
T.L. WISE
100083566
PROVINCE OF ONTARIO

September 13, 2018



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
F8	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	10-0-0
F7	Forex 2.0E-3000Fb LVL	1.75	11.875	2	2	4	6-0-0
F6	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	4-0-0

LVL/LSL (Dropped)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BBO4	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	8-0-0

I Joist (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
J9	NJ60U	3.5	11.875			19	20-0-0
J8	NJ60U	3.5	11.875			1	18-0-0
J7	NJH	2.5	11.875			40	16-0-0
J6	NJH	2.5	11.875			20	14-0-0
J2	NJH	2.5	11.875			1	6-0-0
J1	NJH	2.5	11.875			2	4-0-0

Rim Board

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875			14	12

Hanger

Label	Pcs	Description	Skew	Slope	Beam/Girder fasteners	Supported Member fasteners
H1	2	HGUS410			4-6 16d	16 16d
H2	1	HUC410 (Min)			14 16d	6 10d
H4	13	LT251188			4 10dx1 1/2	2 10dx1 1/2

Blocking

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BLK1	NJH	2.5	11.875	LinFt		Varies	39-0-0

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 frame'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"x4" 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 are represents ceramic tiled floor with an additional dead load of 5 PSF

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

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP INC.
64 Jardin Dr, Suite 3A
Date: Rev. 1, 4/26/2018
Project No: 2645
Model: Millwood 2, Elevation 1

Legend

PS ◇ Point Load Support
Load from Above
Wall
Wall Opening
Norbord Rimboard Plus 1.125 X 11.875
NJ 11.875
NJ60U 11.875
NJH 11.875
Forex 2.0E-3000Fb LVL 1.75 X 9.5 (Dropped)
Forex 2.0E-3000Fb LVL 1.75 X 11.875

NASCOR

Layout Name: MILLWOOD 2-ELEV 1
Design Method: LSD
Description:
Created: June 25, 2018
Builder: GREENPARK
Sales Rep: R M
Designer: R O
Shipping:
Project:
Builder's Project:

Kott Lumber Company
14 Anderson Blvd
Stouffville, Ontario
Canada
K2H7V1
905-642-4400

Job Path: S:\CUSTOMERS\GREENPARK\MINNISALE HOMES\MODELS\MILLWOOD 2\FLOORS\ELEV 1\MILLWOOD 2-ELEV 1.isl

Second Floor
Design Method: LSD
Building Code: NBCC 2010 / OBC 2012

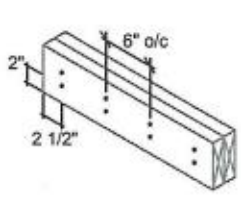
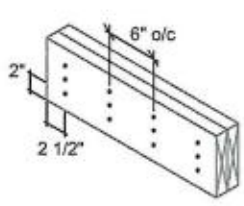
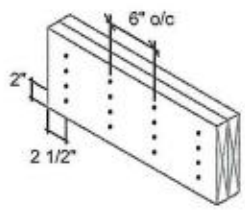
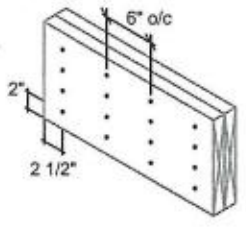
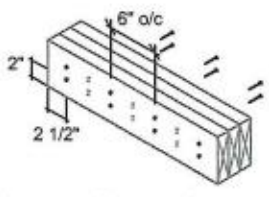
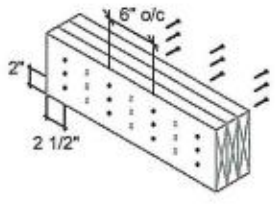
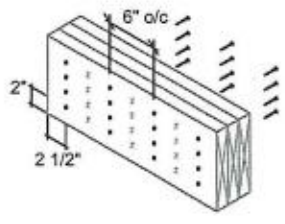
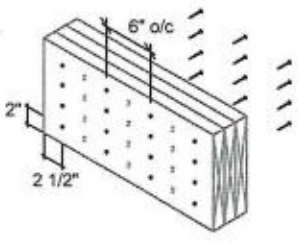
Floor
Loads
Live: 40
Dead: 15
Deflection Joist
LL Span L/: 480
TL Span L/: 360
LL Cant 2L/: 480
TL Cant 2L/: 360
Deflection Girder
LL Span L/: 360
TL Span L/: 240
LL Cant 2L/: 480
TL Cant 2L/: 240
Decking
Deck: SPF Plywood
Thickness: 5/8"
Fastener: Nailed & Glued
Vibration
Ceiling: Gypsum 1/2"

LOT 23

KOTT

MULTIPLE MEMBER CONNECTIONS

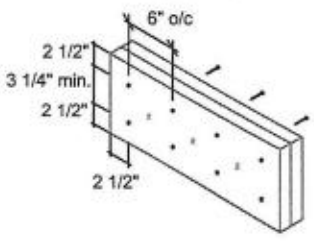
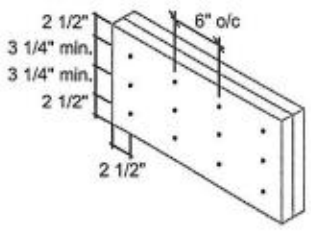
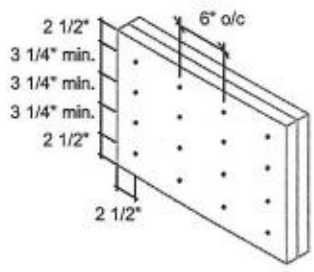
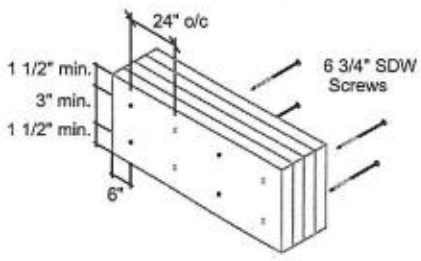
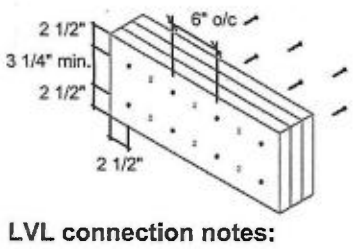
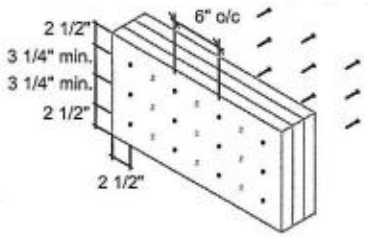
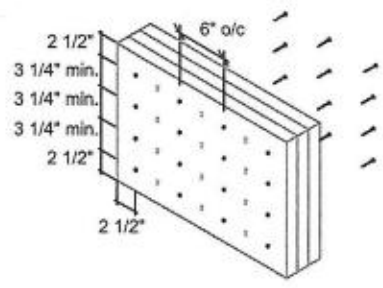
Conventional Connections (for uniform distributed loads)

	2x6	2x8	2x10	2x12
2-ply				
3-ply				

Conventional connection notes:

-Nails to be 3" 10d spiral wire nails.
-Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
-Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

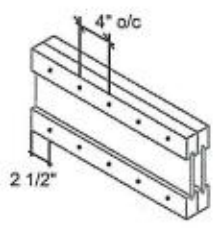
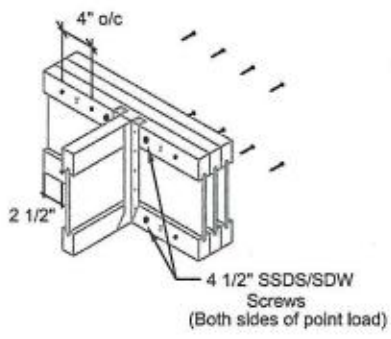
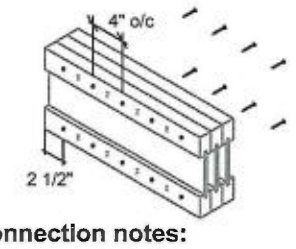
LVL Connections (for uniform distributed loads)

	9 1/2" LVL	11 7/8" - 14" LVL	16"-18" LVL	4-ply (Top load only)
				
				For side-loaded 4-ply LVL Connections, please consult the engineering calculation page for the component and the Nascor layout

LVL connection notes:

-Nails to be 3 1/2" spiral wire nails.
-Nails to be located a minimum of 2 1/2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in 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.

Vertical I-Joist Connections (for uniform distributed loads)

	9 1/2" - 11 7/8" I-Joist	3-ply I-Joist w/ point load (Joist Hanger)
2-ply		
3-ply		

Vertical I-Joist connection notes:

-Nails to be 3" spiral wire nails.
-Nails to be located at centre of top and bottom flanges. Start all nails a minimum of 2 1/2" in from ends.
-Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

MULTI -PLY CONNECTION DETAILS
Date: November 30, 2016
Scale: NTS

KOTT

KOTT
3228 Moodie Drive
Ottawa, ON
K2H 7V1
Ph: 613-838-2775
Fx: 613-838-4751

Engineering Note Page (ENP-2)

REVISION 2009-10-09

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 NASCOR 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 squash blocks. Structural elements such as walls, posts, connectors, and squash 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 NASCOR joists is to be carried out in accordance with the current edition of the manufacturer's approved literature available at http://www.nascor.ca.

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 squash block framing is required at all point loads over bearings.

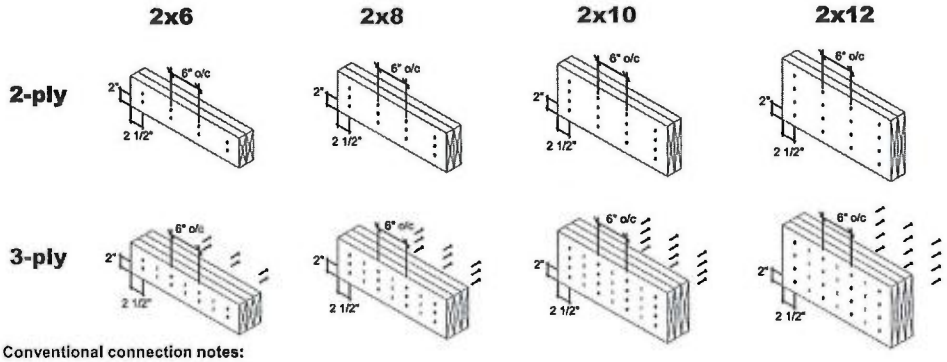
HANDLING AND INSTALLATION

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

KOTT

MULTIPLE MEMBER CONNECTIONS

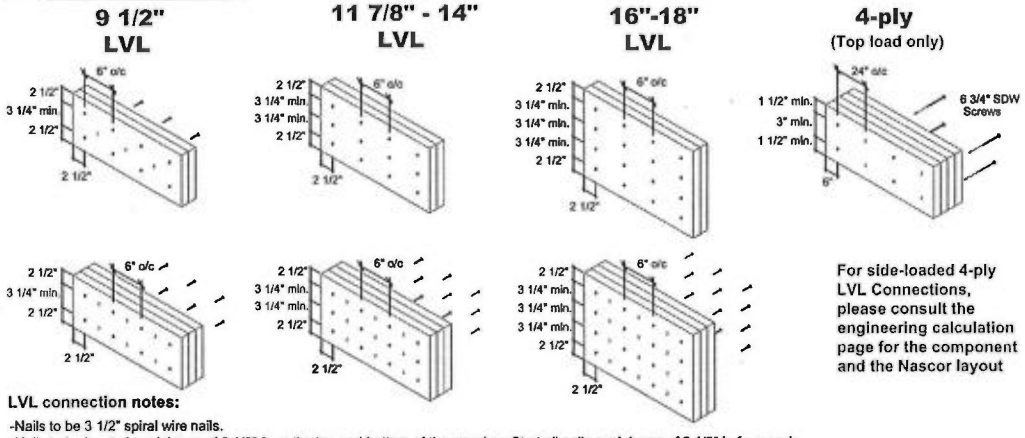
Conventional Connections (for uniform distributed loads)



Conventional connection notes:

-Nails to be 3" 10d spiral wire nails.
-Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in 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 uniform distributed loads)

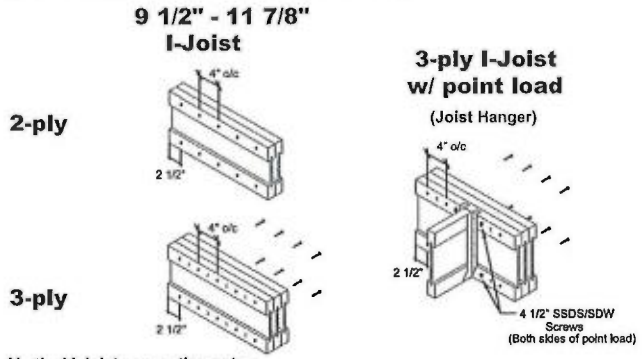


For side-loaded 4-ply LVL Connections, please consult the engineering calculation page for the component and the Nascor layout

LVL connection notes:

-Nails to be 3 1/2" spiral wire nails.
-Nails to be located a minimum of 2 1/2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in 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.

Vertical I-Joist Connections (for uniform distributed loads)



Vertical I-Joist connection notes:

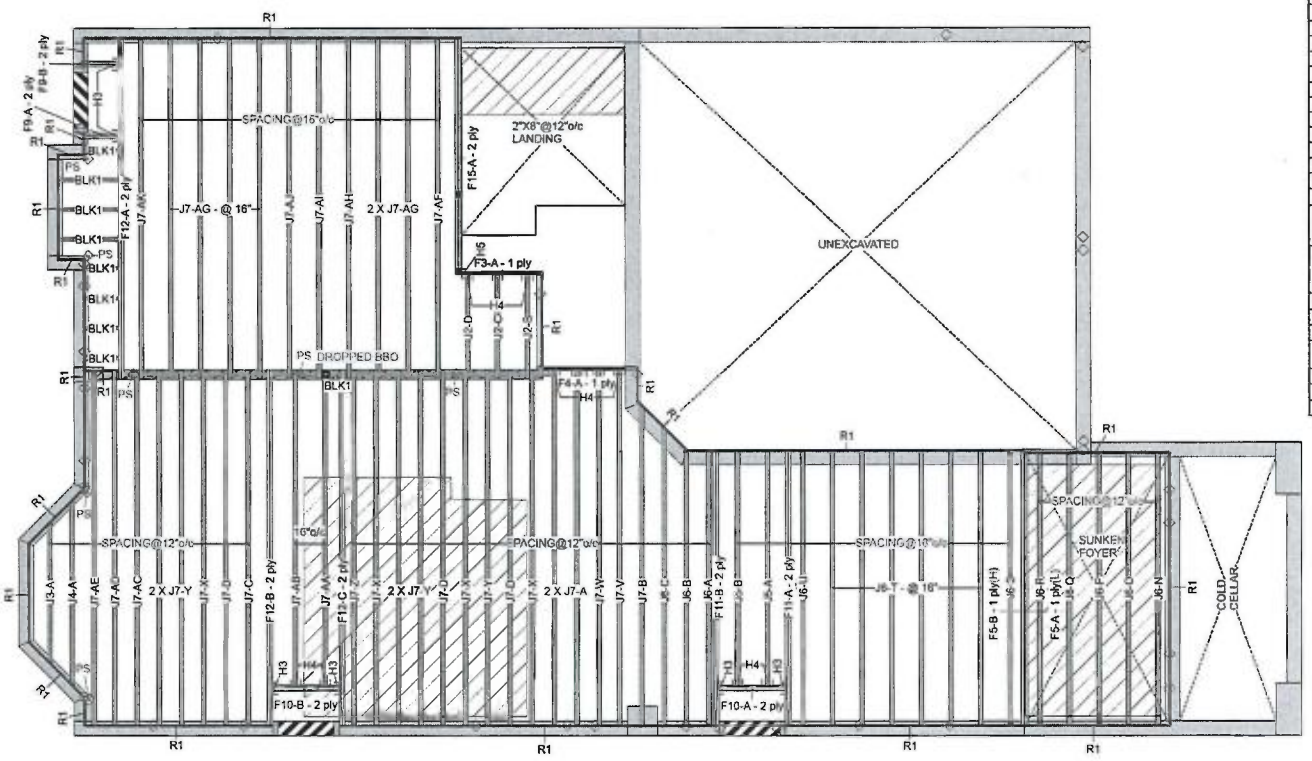
-Nails to be 3" spiral wire nails.
-Nails to be located at centre of top and bottom flanges. Start all nails a minimum of 2 1/2" in from ends.
-Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

KOTT

KOTT
3228 Moodie Drive
Ottawa, ON
K2H 7V1
Ph: 613-838-2775
Fx: 613-838-4751

KOTT

Ground 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 Nascor span table for the loads and spacing shown on this layout.

The floor system must be assembled in accordance to the Nascor 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.

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September 13, 2018

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This layout is to be used as an installation guide only. It is meant to be used in conjunction with the architectural and structural drawings, not to replace them

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)

Ground Floor
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F5	Forex 2.0E-3000Fb LVL	1.75	11.875			2	14-0-0
F15	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
F3	Forex 2.0E-3000Fb LVL	1.75	11.875			1	4-0-0

I Joist (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F12	NJ	1.5	11.875	3	2	6	16-0-0
F11	NJ	1.5	11.875	2	2	4	14-0-0
F10	NJ	1.5	11.875	2	2	4	4-0-0
F9	NJ	1.5	11.875	2	2	4	2-0-0
J7	NJH	2.5	11.875			35	18-0-0
J6	NJH	2.5	11.875			16	14-0-0
J5	NJH	2.5	11.875			2	12-0-0
J4	NJH	2.5	11.875			1	10-0-0
J3	NJH	2.5	11.875			1	8-0-0
J2	NJH	2.5	11.875			3	6-0-0

Rim Board

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

Hanger

Label	Pcs	Description	Skew	Slope	Beam/Girder fasteners	Supported Member fasteners
H3	6	LT2-151188			4 10dx1 1/2	2 10dx1 1/2
H4	11	LT251188			4 10dx1 1/2	2 10dx1 1/2
H5	1	HUCQ1.81/9-SDS				

Blocking

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

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/irmjoist.
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 frame'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"x4" 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 are represents ceramic tiled floor with an additional 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.

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP INC.
64 Jardin Dr, Suite 3A
Date: Rev. 1, 4/26/2018
Project No: 2645
Model: Millwood 2, Elevation 1

Legend

PS — Point Load Support
◇ — Load from Above
Wall
Wall Opening
Norbord Rimboard Plus 1.125 X 11.875
NJ 11.875
NJH 11.875
Forex 2.0E-3000Fb LVL 1.75 X 11.875

NASCOR

Layout Name: MILLWOOD 2-ELEV 1
Design Method: LSD
Description:
Created: June 25, 2018
Builder: GREENPARK
Sales Rep: R M
Designer: R O
Shipping:
Project:
Builder's Project:

Kott Lumber Company
14 Anderson Blvd
Stouffville, Ontario
Canada
K2H7V1
905-642-4400

Job Path
S:\CUSTOMERS\GREENPARK\MINNISALE HOMES\MODELS\MILLWOOD 2\FLOORS\ELEV 1\MILLWOOD 2-ELEV 1.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/	240
Decking	
Deck	SPF Plywood
Thickness	3/4"
Fastener	Nailed & Glued
Vibration	

KOTT

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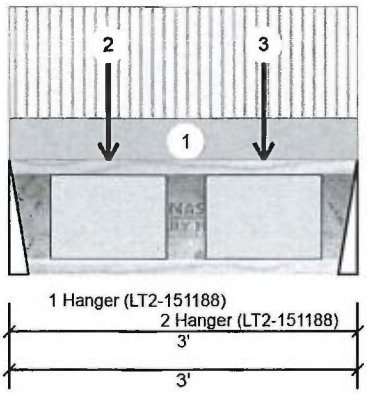
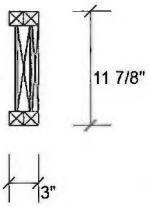
Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F10-A NJ 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	282	106	0	0
2	287	108	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	20%	132 / 423	555	L	1.25D+1.5L
2 - Hanger	2.000"	21%	135 / 431	566	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	401 ft-lb	1'4 1/2"	9020 ft-lb	0.044 (4%)	1.25D+1.5L	L
Unbraced	401 ft-lb	1'4 1/2"	5749 ft-lb	0.070 (7%)	1.25D+1.5L	L
Shear	558 lb	2'10 3/4"	3400 lb	0.164 (16%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/38142)	1'5 9/16"	0.093 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.002 (L/14284)	1'5 1/2"	0.093 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.003 (L/10392)	1'5 9/16"	0.140 (L/240)	0.020 (2%)	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 flange braced at bearings.
6 Bottom flange braced at bearings.

LICENSED PROFESSIONAL ENGINEER
T.L. WISE
100083566
PROVINCE OF ONTARIO

September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-0-0	(Span)1-9-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-10-4		Far Face	87 lb	233 lb	0 lb	0 lb	J5
3	Point	2-2-4		Far Face	86 lb	229 lb	0 lb	0 lb	J5

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. I-Joist not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. I-Joist flanges must not be cut or drilled
2. Refer to latest copy of the I-Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged I-Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
7. For flat roofs p... ponding

This design i...

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.

Manufacturer Info

Nascor by Kott

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

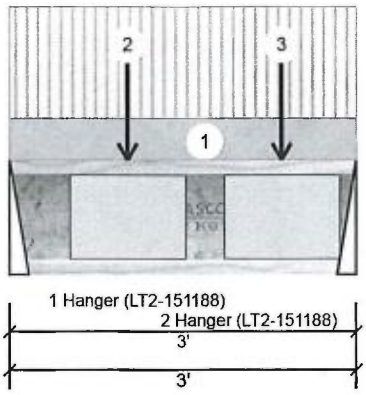
isDesign™

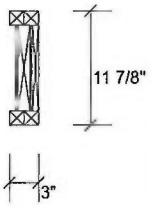
Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F10-B NJ 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	343	129	0	0
2	404	152	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	2.000"	25%	161 / 514	675	L	1.25D+1.5L
2 - Hanger	2.000"	29%	189 / 606	795	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	583 ft-lb	1' 1/4"	9020 ft-lb	0.065 (6%)	1.25D+1.5L	L
Unbraced	583 ft-lb	1' 1/4"	5749 ft-lb	0.101 (10%)	1.25D+1.5L	L
Shear	788 lb	2'10 3/4"	3400 lb	0.232 (23%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/27610)	1'1 5/16"	0.093 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.003 (L/10370)	1'1 5/16"	0.093 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.004 (L/7538)	1'1 5/16"	0.140 (L/240)	0.030 (3%)	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 flange braced at bearings.
6 Bottom flange braced at bearings.

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September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-0-0	(Span)1-9-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	1-0-4		Far Face	130 lb	346 lb	0 lb	0 lb	J7
3	Point	2-4-4		Far Face	110 lb	293 lb	0 lb	0 lb	

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. I-Joist not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. I-Joist flanges must not be cut or drilled
2. Refer to latest copy of the I-Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged I-Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
7. For flat roofs ponding

This design i

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.

Manufacturer Info

Nascor by Kott

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

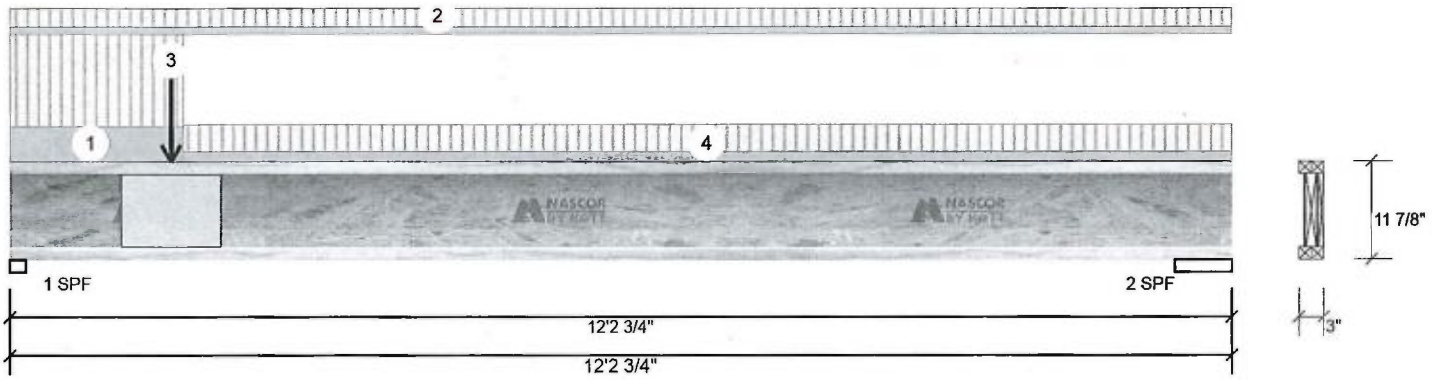
isDesign™

Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F11-A NJ 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	512	192	0	0
2	243	91	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	1.875"	38%	240 / 767	1008	L	1.25D+1.5L
2 - SPF	6.875"	14%	114 / 365	479	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1602 ft-lb	4'6 5/8"	9020 ft-lb	0.178 (18%)	1.25D+1.5L	L
Unbraced	1602 ft-lb	4'6 5/8"	1617 ft-lb	0.991 (99%)	1.25D+1.5L	L
Shear	993 lb	1 1/8"	3400 lb	0.292 (29%)	1.25D+1.5L	L
Perm Defl in.	0.018 (L/7877)	5'6 5/16"	0.388 (L/360)	0.050 (5%)	D	Uniform
LL Defl inch	0.047 (L/2957)	5'6 5/16"	0.388 (L/360)	0.120 (12%)	L	L
TL Defl inch	0.065 (L/2150)	5'6 5/16"	0.581 (L/240)	0.110 (11%)	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 flange must be laterally braced at a maximum of 5'7" o.c.
5 Bottom flange braced at bearings.

LICENSED PROFESSIONAL ENGINEER
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PROVINCE OF ONTARIO

September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-8-14	(Span)3-3-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 12-2-12	(Span)0-7-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-7-6		Far Face	108 lb	287 lb	0 lb	0 lb	F10
4	Tie-In	1-8-14 to 12-2-12	(Span)0-11-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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. Joist not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
7. For flat roofs pro ponding

This design is

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.

Manufacturer Info
Nascor by Kott

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

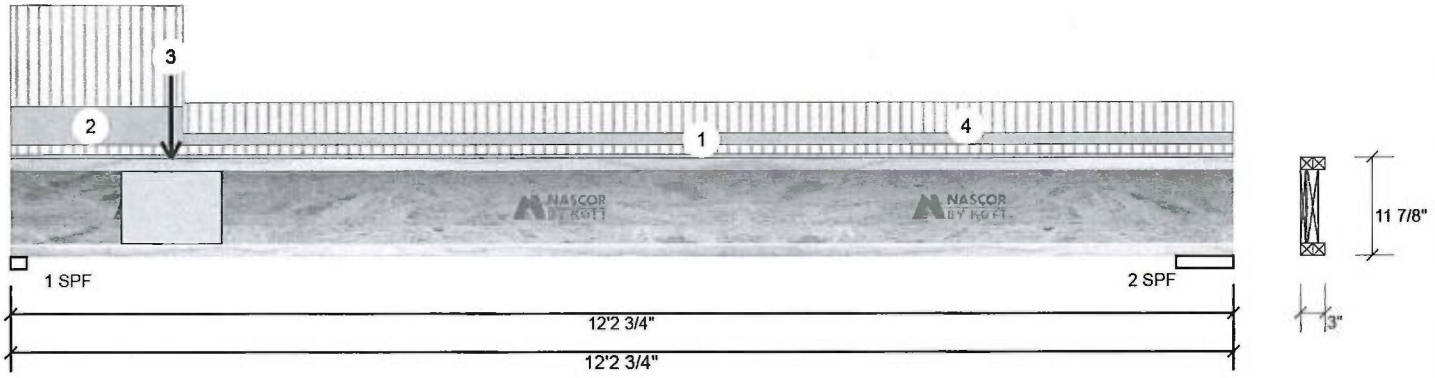
isDesign™

Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F11-B NJ 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	471	177	0	0
2	206	77	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	1.875"	35%	221 / 707	928	L	1.25D+1.5L
2 - SPF	6.875"	12%	96 / 308	405	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1410 ft-lb	4'3 1/4"	9020 ft-lb	0.156 (16%)	1.25D+1.5L	L
Unbraced	1410 ft-lb	4'3 1/4"	1412 ft-lb	0.998 (100%)	1.25D+1.5L	L
Shear	915 lb	1 1/8"	3400 lb	0.269 (27%)	1.25D+1.5L	L
Perm Defl in.	0.015 (L/9004)	5'5 11/16"	0.388 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.041 (L/3379)	5'5 11/16"	0.388 (L/360)	0.110 (11%)	L	L
TL Defl inch	0.057 (L/2457)	5'5 11/16"	0.581 (L/240)	0.100 (10%)	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 flange must be laterally braced at a maximum of 5'11" o.c.
5 Bottom flange braced at bearings.

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100083566
PROVINCE OF ONTARIO
September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 12-2-12	(Span)0-3-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-8-14	(Span)3-3-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-7-6		Near Face	106 lb	282 lb	0 lb	0 lb	F10
4	Tie-In	1-8-14 to 12-2-12	(Span) 0-11-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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. I-Joist not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. I-Joist flanges must not be cut or drilled
2. Refer to latest copy of the I-Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged I-Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
7. For flat roofs pro... ponding

This design is ...

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.

Manufacturer Info
Nascor by Kott

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

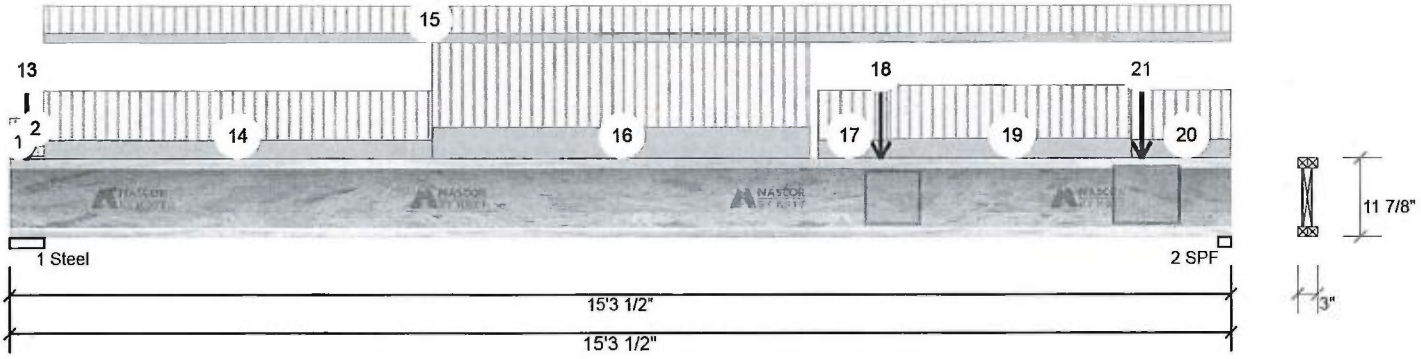
isDesign™

Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F12-A NJ 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	641	269	0	0
2	539	202	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Steel	5.250"	38%	337 / 961	1298	L	1.25D+1.5L
2 - SPF	1.875"	40%	253 / 809	1061	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3724 ft-lb	8' 3/16"	9020 ft-lb	0.413 (41%)	1.25D+1.5L	L
Unbraced	3724 ft-lb	8' 3/16"	3737 ft-lb	0.997 (100%)	1.25D+1.5L	L
Shear	1052 lb	15'2 3/8"	3400 lb	0.309 (31%)	1.25D+1.5L	L
Perm Defl in.	0.062 (L/2891)	7'10 3/8"	0.494 (L/360)	0.120 (12%)	D	Uniform
LL Defl inch	0.164 (L/1083)	7'10 3/8"	0.494 (L/360)	0.330 (33%)	L	L
TL Defl inch	0.226 (L/788)	7'10 3/8"	0.741 (L/240)	0.300 (30%)	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 flange must be laterally braced at a maximum of 3'9" o.c.
5 Bottom flange braced at bearings.

LICENSED PROFESSIONAL ENGINEER
T.L. WISE
100083566
PROVINCE OF ONTARIO
September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-5-4	(Span)0-3-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 0-5-4	(Span)0-8-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	0-2-10		Top	1 lb	3 lb	0 lb	0 lb	J7
4	Point	0-2-10		Top	1 lb	4 lb	0 lb	0 lb	J7
5	Point	0-2-10		Top	1 lb	3 lb	0 lb	0 lb	J7
6	Point	0-2-10		Top	1 lb	0 lb	0 lb	0 lb	Wall Self Weight
7	Point	0-2-10		Top	21 lb	56 lb	0 lb	0 lb	J7

Continued on page 2...

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. I-Joist not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. I-Joist flanges must not be cut or drilled
2. Refer to latest copy of the I-Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged I-Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
7. For flat roofs provi ponding

This design is v

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.

Manufacturer Info
Nascor by Kott

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

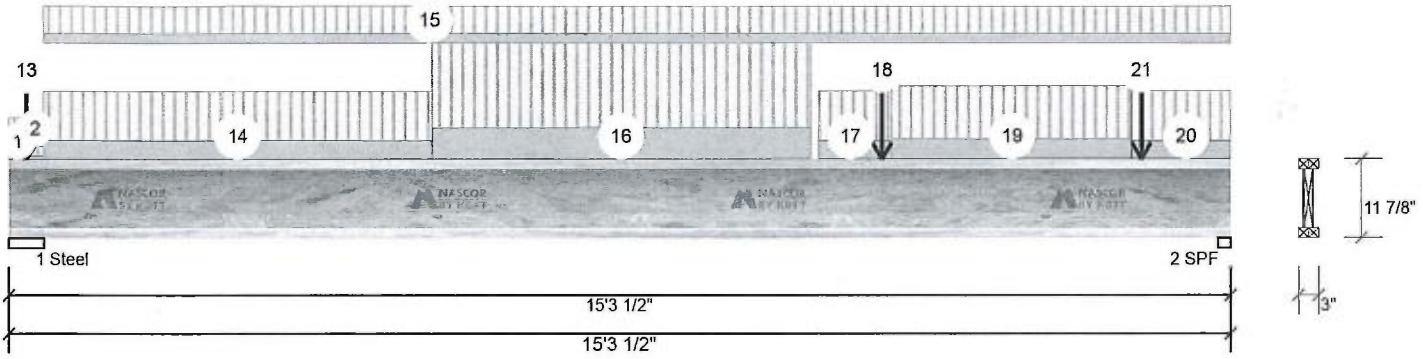
isDesign™

Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F12-A NJ 11.875" 2-Ply - PASSED

Level: Ground Floor



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
8	Point	0-2-10		Top	22 lb	59 lb	0 lb	0 lb	J7
9	Point	0-2-10		Top	2 lb	5 lb	0 lb	0 lb	J7
10	Point	0-2-10		Top	20 lb	0 lb	0 lb	0 lb	Wall Self Weight
11	Point	0-2-10		Top	9 lb	25 lb	0 lb	0 lb	J7
12	Point	0-2-10		Top	10 lb	26 lb	0 lb	0 lb	J7
13	Point	0-2-10		Top	9 lb	0 lb	0 lb	0 lb	Wall Self Weight
14	Tie-In	0-5-4 to 5-3-10	(Span)1-7-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
15	Tie-In	0-5-4 to 15-3-8	(Span) 0-10-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
16	Tie-In	5-3-10 to 10-0-8	(Span)2-9-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
17	Tie-In	10-1-10 to 11-0-10	(Span)1-7-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
18	Point	10-11-2		Far Face	18 lb	49 lb	0 lb	0 lb	F9
19	Tie-In	11-0-10 to 14-0-10	(Span)1-9-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
20	Tie-In	14-0-10 to 15-3-8	(Span)1-7-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
21	Point	14-2-2		Far Face	25 lb	66 lb	0 lb	0 lb	F9

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. iJoist not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. iJoist flanges must not be cut or drilled
2. Refer to latest copy of the iJoist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged iJoists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info

Nascor by Kott

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

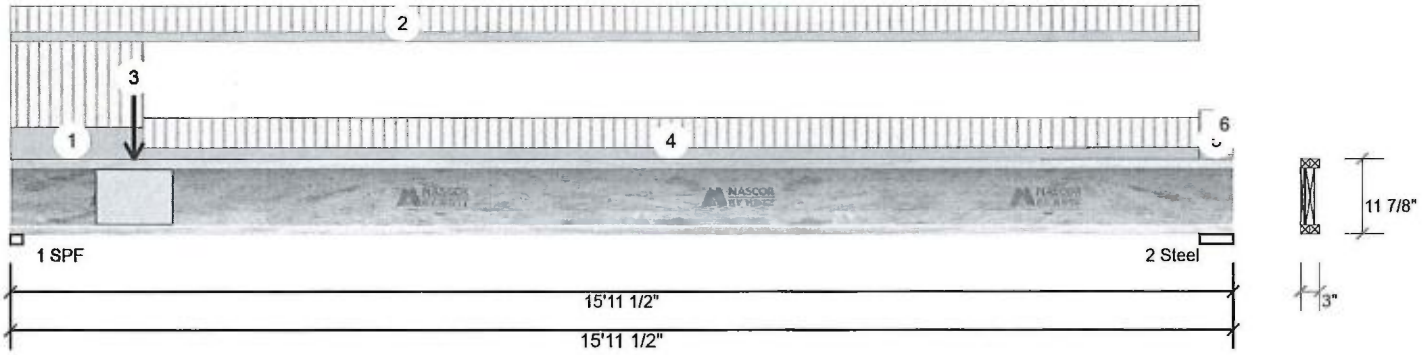
isDesign™

Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F12-B NJ 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	712	267	0	0
2	376	141	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	1.875"	53%	334 / 1068	1402	L	1.25D+1.5L
2 - Steel	5.250"	22%	176 / 563	739	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3112 ft-lb	6'11 1/2"	9020 ft-lb	0.345 (34%)	1.25D+1.5L	L
Unbraced	3112 ft-lb	6'11 1/2"	3135 ft-lb	0.993 (99%)	1.25D+1.5L	L
Shear	1386 lb	1 1/8"	3400 lb	0.408 (41%)	1.25D+1.5L	L
Perm Defl in.	0.057 (L/3233)	7'6 13/16"	0.516 (L/360)	0.110 (11%)	D	Uniform
LL Defl inch	0.153 (L/1213)	7'6 13/16"	0.516 (L/360)	0.300 (30%)	L	L
TL Defl inch	0.211 (L/882)	7'6 13/16"	0.774 (L/240)	0.270 (27%)	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 flange must be laterally braced at a maximum of 4'2" o.c.
5 Bottom flange braced at bearings.

LICENSED PROFESSIONAL ENGINEER
T.L. WISE
100083566
PROVINCE OF ONTARIO
September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-8-14	(Span)3-3-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 15-6-4	(Span) 0-11-12 to 0-11-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-7-6		Near Face	129 lb	343 lb	0 lb	0 lb	F10
4	Tie-In	1-8-14 to 15-6-4	(Span)1-1-12 to 1-1-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	15-6-4 to 15-11-8	(Span)0-5-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Tie-In	15-6-4 to 15-11-8	(Span) 0-10-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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. I-Joist not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. I-Joist flanges must not be cut or drilled
2. Refer to latest copy of the I-Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged I-Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
7. For flat roofs pro... ponding

This design is ...

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.

Manufacturer Info
Nascor by Kott

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

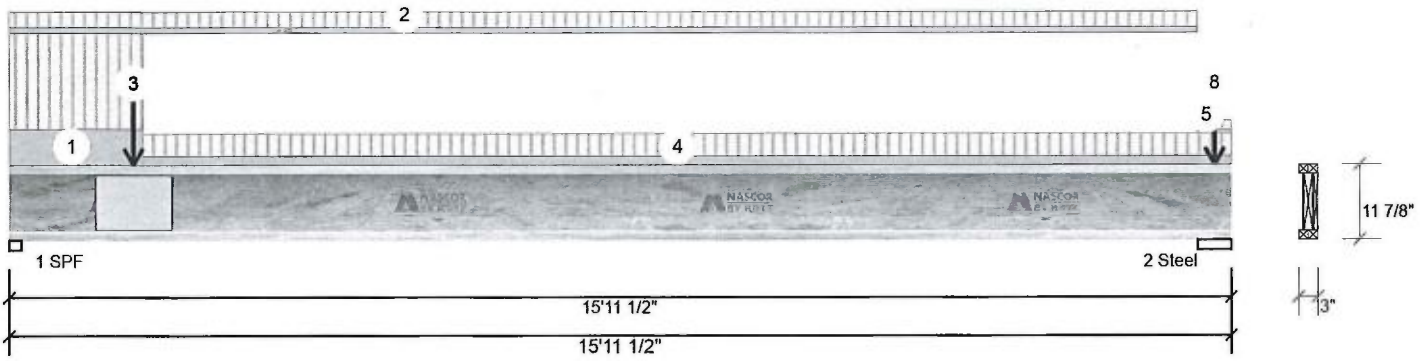
isDesign™

Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F12-C NJ 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	649	244	0	0
2	417	179	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	1.875"	48%	305 / 973	1278	L	1.25D+1.5L
2 - Steel	5.250"	25%	223 / 625	849	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2271 ft-lb	6'1 5/8"	9020 ft-lb	0.252 (25%)	1.25D+1.5L	L
Unbraced	2271 ft-lb	6'1 5/8"	2271 ft-lb	1.000 (100%)	1.25D+1.5L	L
Shear	1264 lb	1 1/8"	3400 lb	0.372 (37%)	1.25D+1.5L	L
Perm Defl in.	0.042 (L/4432)	7'4 5/8"	0.516 (L/360)	0.080 (8%)	D	Uniform
LL Defl inch	0.112 (L/1664)	7'4 3/4"	0.516 (L/360)	0.220 (22%)	L	L
TL Defl inch	0.154 (L/1210)	7'4 3/4"	0.774 (L/240)	0.200 (20%)	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 flange must be laterally braced at a maximum of 4'10" o.c.
5 Bottom flange braced at bearings.

LICENSED PROFESSIONAL ENGINEER
T.L. WISE
100083566
PROVINCE OF ONTARIO

September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-8-14	(Span)3-3-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 15-6-4	(Span)0-6-4 to 0-6-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-7-6		Far Face	152 lb	404 lb	0 lb	0 lb	F10
4	Tie-In	1-8-14 to 15-11-8	(Span)0-9-4 to 0-9-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
5	Tie-In	15-6-4 to 15-11-8	(Span)0-3-12	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Point	15-8-14		Top	32 lb	85 lb	0 lb	0 lb	J7

Continued on page 2...

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. Joist not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. Joist flanges must not be cut or drilled
2. Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
7. For flat roofs pro... ponding

This design is ...

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.

Manufacturer Info

Nascor by Kott

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

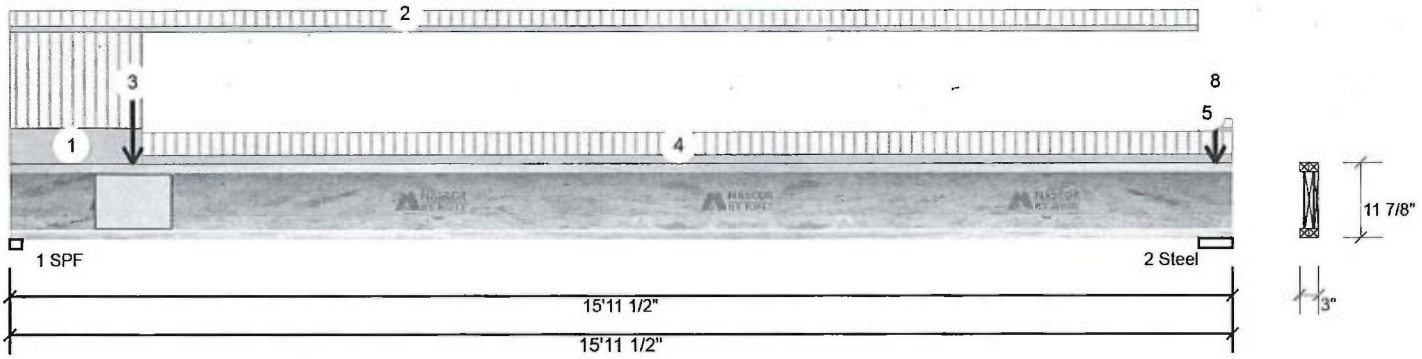
isDesign™

Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F12-C NJ 11.875" 2-Ply - PASSED

Level: Ground Floor



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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Point	15-8-14		Top	30 lb	80 lb	0 lb	0 lb	J7
8	Point	15-8-14		Top	22 lb	0 lb	0 lb	0 lb	Wall Self Weight

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. I-Joist not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. I-Joist flanges must not be cut or drilled
2. Refer to latest copy of the I-Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged I-Joists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
7. For flat roofs provide proper drainage to prevent ponding

This design is valid until 7/10/2021

Manufacturer Info

Nascor by Kott

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

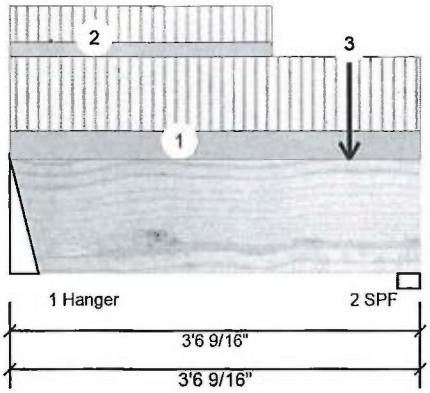
isDesign™

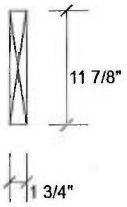
Client: GREENPARK
Project:
Address:

Date: 9/10/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F3-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	555	218	0	0
2	510	201	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	3.000"	28%	272 / 833	1106	L	1.25D+1.5L
2 - SPF	2.375"	40%	251 / 765	1016	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	785 ft-lb	1'9 5/16"	17130 ft-lb	0.046 (5%)	1.25D+1.5L	L
Unbraced	785 ft-lb	1'9 5/16"	13259 ft-lb	0.059 (6%)	1.25D+1.5L	L
Shear	745 lb	2'5 1/16"	5798 lb	0.129 (13%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/26669)	1'9 7/16"	0.108 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.004 (L/10472)	1'9 3/8"	0.108 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.005 (L/7520)	1'9 3/8"	0.161 (L/240)	0.030 (3%)	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
T.L. WISE
100083566
PROVINCE OF ONTARIO

September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 3-6-9		Top	79 PLF	210 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-0-0 to 2-3-3		Near Face	39 PLF	103 PLF	0 PLF	0 PLF	
3	Point	2-11-3		Near Face	33 lb	87 lb	0 lb	0 lb	J2
	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

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 va

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.

Manufacturer Info
Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

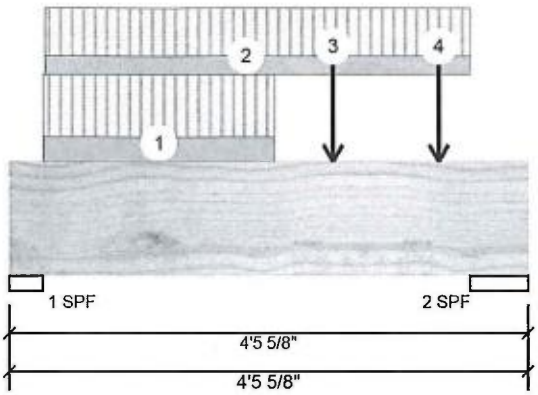
isDesign™

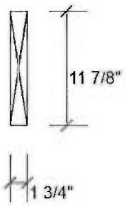
Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F4-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	1024	395	0	0
2	1099	424	0	0

Bearings and Factored Reactions

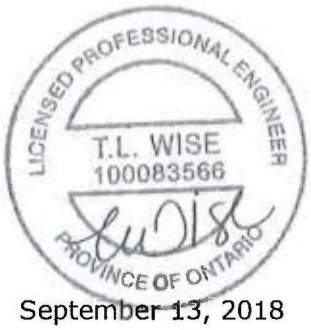
Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	54%	493 / 1536	2029	L	1.25D+1.5L
2 - SPF	5.875"	34%	529 / 1649	2178	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2002 ft-lb	2'1 9/16"	17130 ft-lb	0.117 (12%)	1.25D+1.5L	L
Unbraced	2002 ft-lb	2'1 9/16"	11720 ft-lb	0.171 (17%)	1.25D+1.5L	L
Shear	2314 lb	3' 5/8"	5798 lb	0.399 (40%)	1.25D+1.5L	L
Perm Defl in.	0.004 (L/10769)	2'1 11/16"	0.127 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.011 (L/4138)	2'1 11/16"	0.127 (L/360)	0.090 (9%)	L	L
TL Defl inch	0.015 (L/2989)	2'1 11/16"	0.191 (L/240)	0.080 (8%)	D+L	L

Design Notes

1 Girders are designed to be supported on the bottom edge only.
2 Top braced at bearings.
3 Bottom braced at bearings.



September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-3-8 to 2-3-8		Near Face	120 PLF	319 PLF	0 PLF	0 PLF	
2	Part. Uniform	0-3-12 to 3-11-12		Top	90 PLF	240 PLF	0 PLF	0 PLF	
3	Point	2-9-8		Near Face	115 lb	305 lb	0 lb	0 lb	J7
4	Point	3-8-8		Near Face	112 lb	300 lb	0 lb	0 lb	J7
	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

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

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.

Manufacturer Info
Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

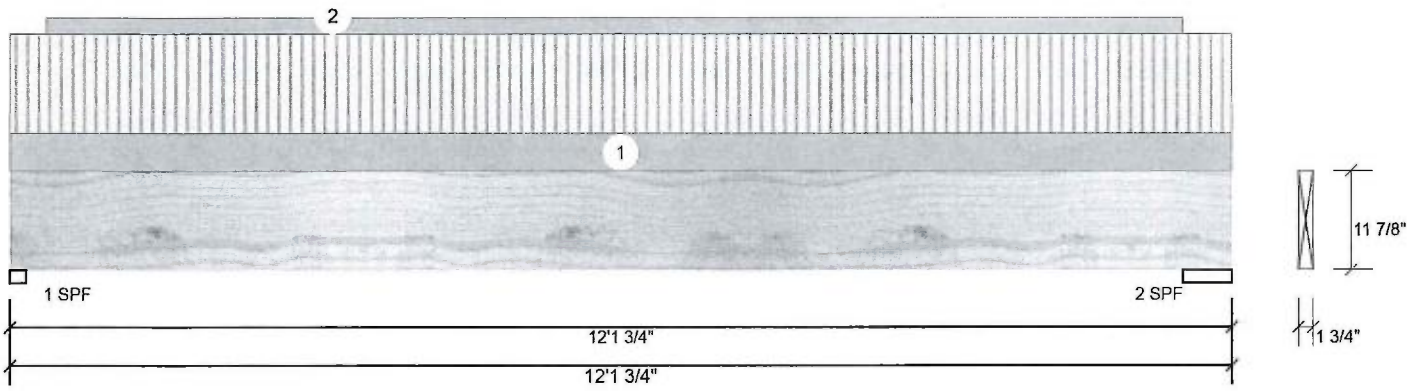
isDesign™

Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
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	73	67	0	0
2	77	70	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	1.875"	10%	83 / 109	192	L	1.25D+1.5L
2 - SPF	5.875"	3%	88 / 115	203	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	553 ft-lb	5'10 7/8"	17130 ft-lb	0.032 (3%)	1.25D+1.5L	L
Unbraced	553 ft-lb	5'10 7/8"	3868 ft-lb	0.143 (14%)	1.25D+1.5L	L
Shear	158 lb	1'1"	5798 lb	0.027 (3%)	1.25D+1.5L	L
Perm Defl in.	0.011 (L/13107)	5'10 7/8"	0.388 (L/360)	0.030 (3%)	D	Uniform
LL Defl inch	0.012 (L/12101)	5'10 7/8"	0.388 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.022 (L/6292)	5'10 7/8"	0.581 (L/240)	0.040 (4%)	D+L	L

Design Notes

1 Girders are designed to be supported on the bottom edge only.
2 Top braced at bearings.
3 Bottom braced at bearings.

September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 12-1-12	(Span)0-7-6	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-4-6 to 11-7-15		Top	2 PLF	0 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

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

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.

Manufacturer Info
Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

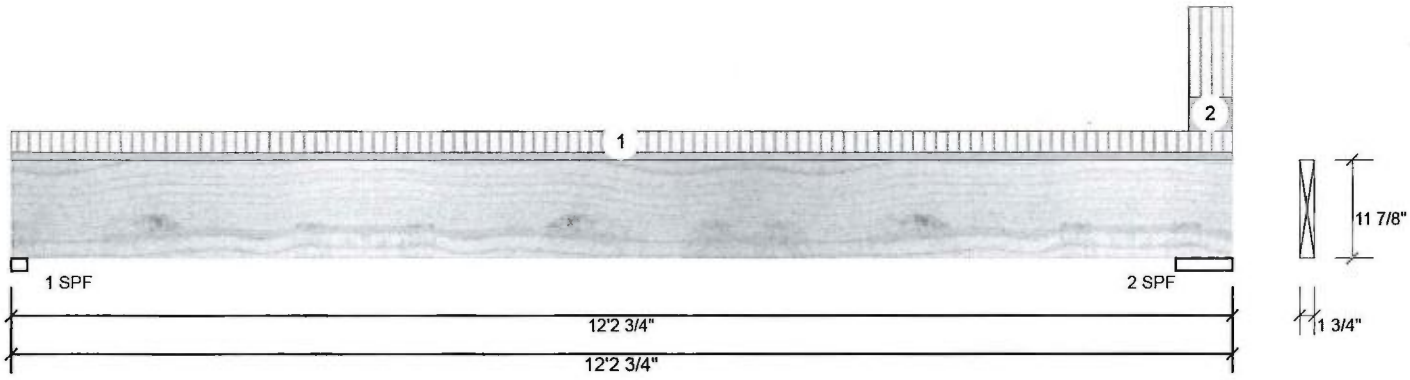
isDesign™

Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F5-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	67	53	0	0
2	95	66	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	1.875"	8%	67 / 101	168	L	1.25D+1.5L
2 - SPF	6.875"	3%	82 / 142	224	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	480 ft-lb	5'10 7/8"	17130 ft-lb	0.028 (3%)	1.25D+1.5L	L
Unbraced	480 ft-lb	5'10 7/8"	3868 ft-lb	0.124 (12%)	1.25D+1.5L	L
Shear	137 lb	1'1"	5798 lb	0.024 (2%)	1.25D+1.5L	L
Perm Defl in.	0.008 (L/16496)	5'10 7/8"	0.388 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.011 (L/13065)	5'10 7/8"	0.388 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.019 (L/7290)	5'10 7/8"	0.581 (L/240)	0.030 (3%)	D+L	L

Design Notes

1 Girders are designed to be supported on the bottom edge only.
2 Top braced at bearings.
3 Bottom braced at bearings.

LICENSED PROFESSIONAL ENGINEER
T.L. WISE
100083566
PROVINCE OF ONTARIO
September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 12-2-12	(Span)0-6-14	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	11-9-6 to 12-2-12	(Span)2-6-2	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	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

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

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.

Manufacturer Info
Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

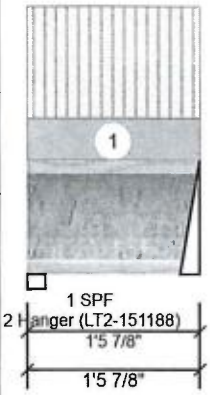
isDesign™

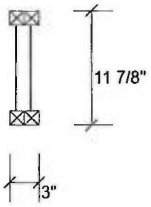
Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F9-A NJ 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	48	18	0	0
2	49	18	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	1.875"	4%	23 / 72	95	L	1.25D+1.5L
2 - Hanger	2.000"	4%	23 / 73	96	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	27 ft-lb	8 7/8"	9020 ft-lb	0.003 (0%)	1.25D+1.5L	L
Unbraced	27 ft-lb	8 7/8"	8539 ft-lb	0.003 (0%)	1.25D+1.5L	L
Shear	83 lb	1 1/8"	3400 lb	0.024 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		

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 flange braced at bearings.
6 Bottom flange braced at bearings.

September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-5-14	(Span)3-3-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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. IJoist not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. IJoist flanges must not be cut or drilled
2. Refer to latest copy of the IJoist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged IJoists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing lengths= 3.5 Inches
7. For flat roofs provide adequate drainage to prevent ponding

This design is v

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.

Manufacturer Info
Nascor by Kott

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

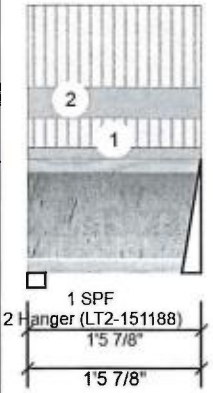
isDesign™

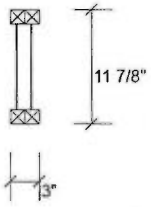
Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F9-B NJ 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	65	24	0	0
2	66	25	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	1.875"	5%	31 / 98	128	L	1.25D+1.5L
2 - Hanger	2.000"	5%	31 / 99	130	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	36 ft-lb	8 7/8"	9020 ft-lb	0.004 (0%)	1.25D+1.5L	L
Unbraced	36 ft-lb	8 7/8"	8539 ft-lb	0.004 (0%)	1.25D+1.5L	L
Shear	112 lb	1 1/8"	3400 lb	0.033 (3%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		

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 flange braced at bearings.
6 Bottom flange braced at bearings.

September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 1-5-14	(Span)1-1-15	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-5-14	(Span)3-3-0	Top	15 PSF	40 PSF	0 PSF	0 PSF	

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. IJoist not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. IJoist flanges must not be cut or drilled
2. Refer to latest copy of the IJoist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-ply fastening details and handling/erection details
3. Damaged IJoists must not be used
4. Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. Web stiffeners for point load as shown Minimum point load bearing length= 3.5 inches
7. For flat roofs provi... ponding

This design is v...

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.

Manufacturer Info
Nascor by Kott

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

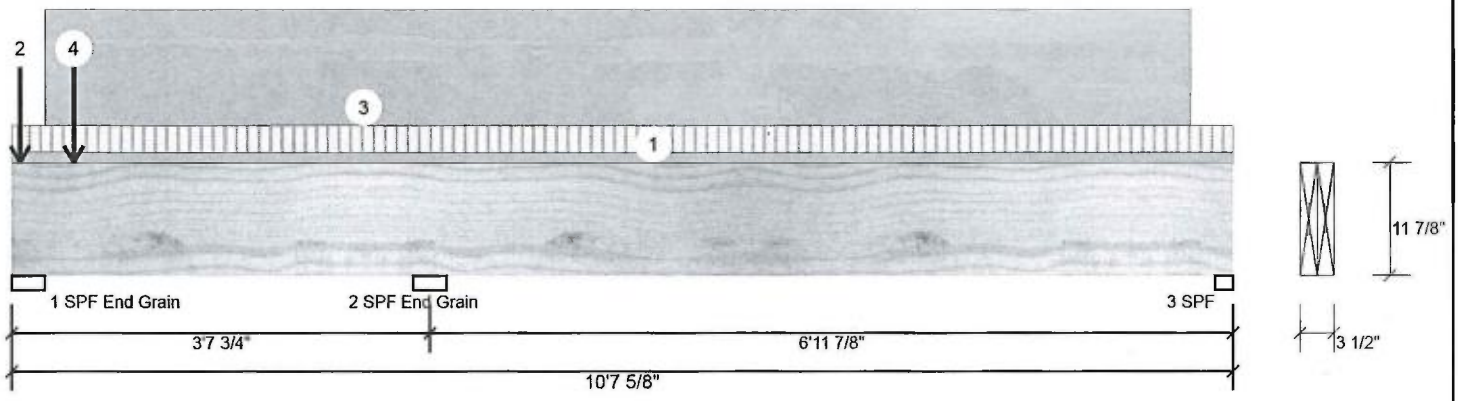
isDesign™

Client: GREENPARK
Project:
Address:

Date: 9/10/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F15-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	986	484	0	0
2	176	679	0	0
3	52	259	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.500"	24%	578 / 1504	2082	L_	1.25D+1.5L
2 - SPF End Grain	3.500"	17%	995 / 0	995	Uniform	1.4D
3 - SPF	1.875"	13%	348 / 0	348	Uniform	1.4D

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-617 ft-lb	3'7 3/4"	22269 ft-lb	0.028 (3%)	1.4D	Uniform
Unbraced	-617 ft-lb	3'7 3/4"	22269 ft-lb	0.028 (3%)	1.4D	Uniform
Pos Moment	521 ft-lb	7'9"	22269 ft-lb	0.023 (2%)	1.4D	Uniform
Unbraced	521 ft-lb	7'9"	21873 ft-lb	0.024 (2%)	1.4D	Uniform
Shear	421 lb	4'7 5/8"	7537 lb	0.056 (6%)	1.4D	Uniform
Perm Defl in.	0.005 (L/17692)	7'3 7/16"	0.230 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.006 (L/14724)	7'3 3/8"	0.345 (L/240)	0.020 (2%)	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
T.L. WISE
100083566
PROVINCE OF ONTARIO
September 13, 2018

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 v

Manufacturer Info

Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

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.

NASCOR

KOTT

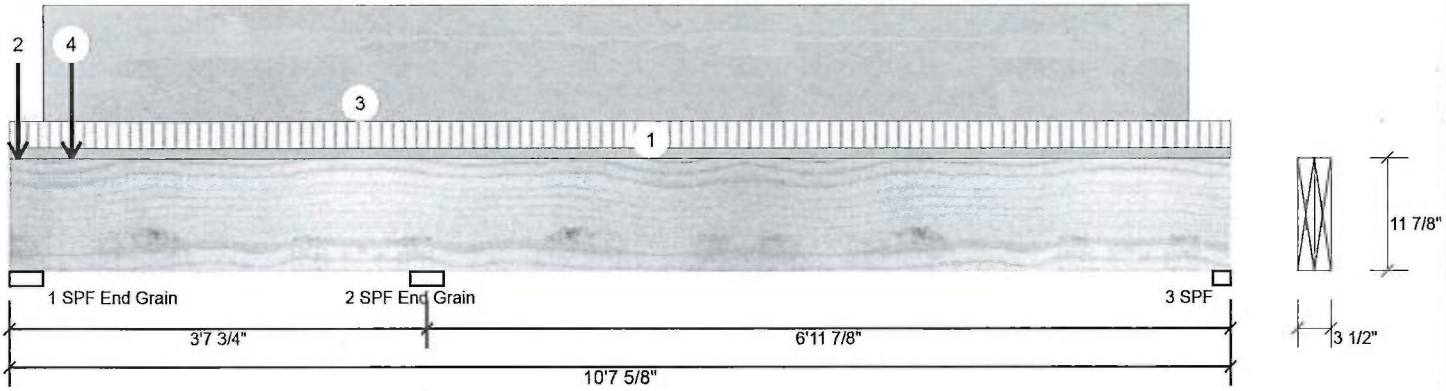
isDesign™

Client: GREENPARK
Project:
Address:

Date: 9/10/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F15-A Forex 2.0E-3000Fb LVL 1.750" X 11.875" 2-Ply - PASSED

Level: Ground Floor



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 10-7-10	(Span)0-11-1	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-0-14		Near Face	218 lb	555 lb	0 lb	0 lb	F3
3	Part. Uniform	0-3-8 to 10-3-4		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
4	Point	0-6-8		Top	231 lb	464 lb	0 lb	0 lb	BBO3 BBO3
	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
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905-642-4400

NASCOR

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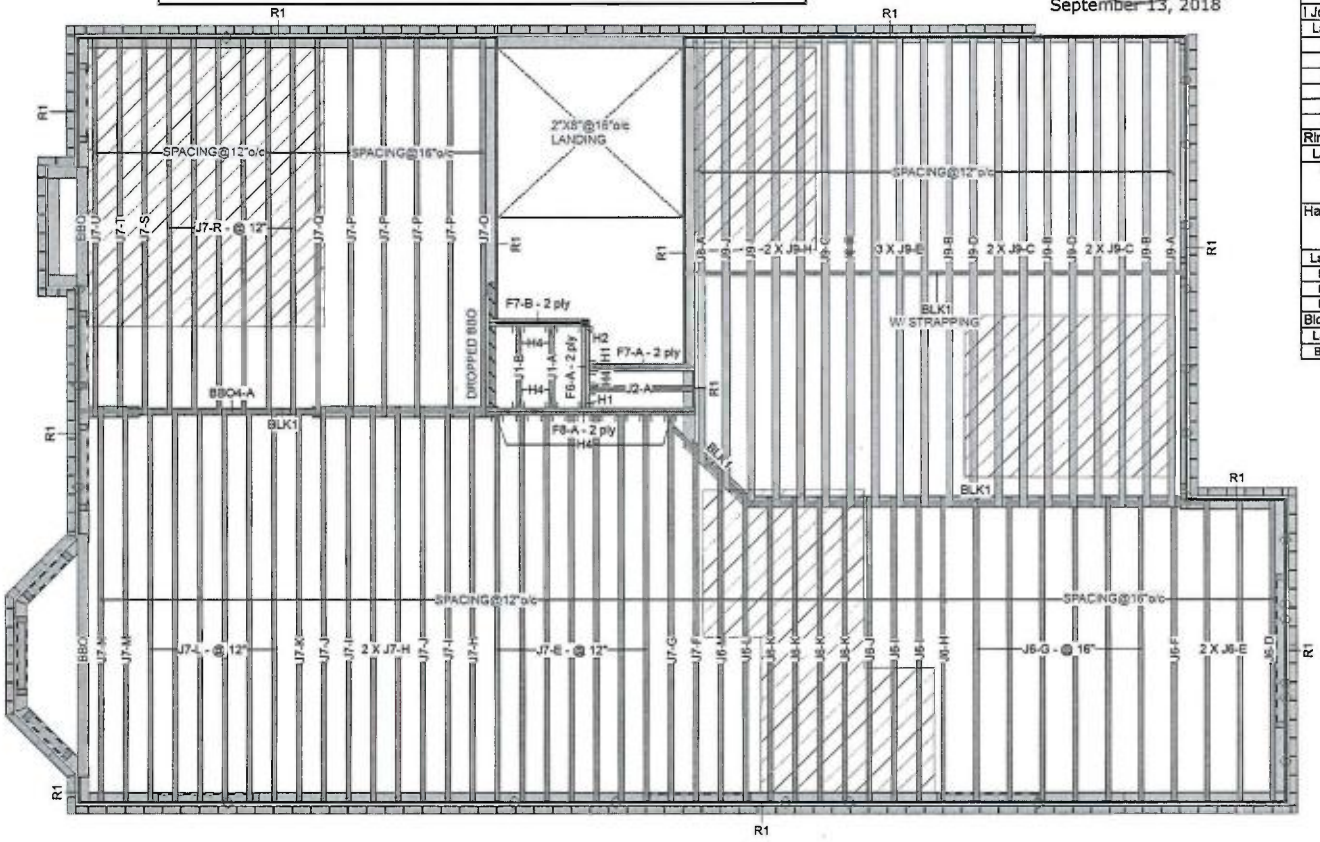
Second Floor

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 Nascor span table for the loads and spacing shown on this layout.

The floor system must be assembled in accordance to the Nascor 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
T.L. WISE
100083566
PROVINCE OF ONTARIO

September 13, 2018



Second 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	10-0-0
F7	Forex 2.0E-3000Fb LVL	1.75	11.875	2	2	4	6-0-0
F6	Forex 2.0E-3000Fb LVL	1.75	11.875	1	2	2	4-0-0

LVL/LSL (Dropped)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BBO4	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	8-0-0

I Joist (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
J9	NJ60U	3.5	11.875			19	20-0-0
J8	NJ60U	3.5	11.875			1	18-0-0
J7	NJH	2.5	11.875			40	16-0-0
J6	NJH	2.5	11.875			20	14-0-0
J2	NJH	2.5	11.875			1	6-0-0
J1	NJH	2.5	11.875			2	4-0-0

Rim Board

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875			14	12

Hanger

Label	Pcs	Description	Skew	Slope	Beam/Girder fasteners	Supported Member fasteners
H1	2	HGUS410			4 16d	16 16d
H2	1	HUC410 (Min)			14 16d	6 10d
H4	13	LT251188			4 10dx1 1/2	2 10dx1 1/2

Blocking

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BLK1	NJH	2.5	11.875	LinFt		Varies	39-0-0

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/nmjoist.
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 frame'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"x4" 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 are represents ceramic tiled floor with an additional 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.

ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP INC.
64 Jardin Dr, Suite 3A
Date: Rev. 1, 4/26/2018
Project No: 2645
Model: Millwood 2, Elevation 1

Legend

PS — Point Load Support
◇ — Load from Above
Wall
Wall Opening
Norbord Rimboard Plus 1.125 X 11.875
NJ 11.875
NJ60U 11.875
NJH 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)

NASCOR

Layout Name	MILLWOOD 2-ELEV 1
Design Method	LSD
Description	
Created	June 25, 2018
Builder	GREENPARK
Sales Rep	R M
Designer	R O
Shipping	
Project	
Builder's Project	

Kott Lumber Company
14 Anderson Blvd
Stouffville, Ontario
Canada
K2H7V1
905-642-4400

Job Path
S:\CUSTOMERS\GREENPARK\MINNISALE HOMES\MODELS\MILLWOOD 2\FLOORS\ELEV 1\MILLWOOD 2-ELEV 1.isl

Second 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/	240
Decking	
Deck	SPF Plywood
Thickness	5/8"
Fastener	Nailed & Glued
Vibration	
Ceiling:	Gypsum 1/2"

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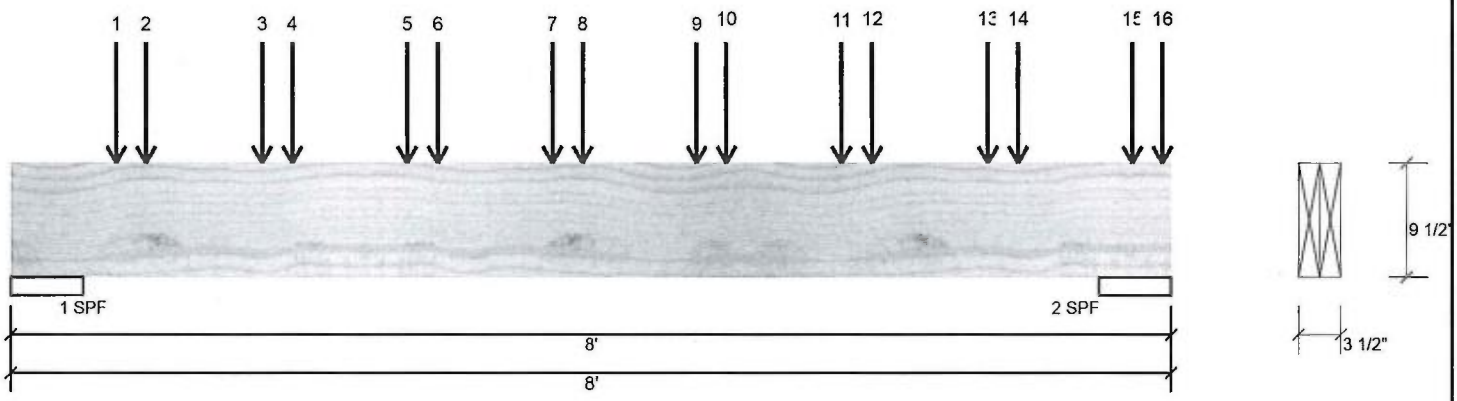
Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

BBO4-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	2221	861	0	0
2	2284	885	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	6.000"	34%	1076 / 3332	4409	L	1.25D+1.5L
2 - SPF	6.000"	35%	1106 / 3425	4531	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	7713 ft-lb	3'11 1/4"	22724 ft-lb	0.339 (34%)	1.25D+1.5L	L
Unbraced	7713 ft-lb	3'11 1/4"	21721 ft-lb	0.355 (36%)	1.25D+1.5L	L
Shear	3886 lb	6'9 1/4"	9277 lb	0.419 (42%)	1.25D+1.5L	L
Perm Defl in.	0.033 (L/2630)	3'11 3/8"	0.238 (L/360)	0.140 (14%)	D	Uniform
LL Defl inch	0.084 (L/1016)	3'11 3/8"	0.238 (L/360)	0.350 (35%)	L	L
TL Defl inch	0.117 (L/733)	3'11 3/8"	0.356 (L/240)	0.330 (33%)	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
T.L. WISE
100083566
PROVINCE OF ONTARIO
September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Point	0-8-12		Top	111 lb	297 lb	0 lb	0 lb	J7
2	Point	0-11-4		Top	116 lb	310 lb	0 lb	0 lb	J7
3	Point	1-8-12		Top	111 lb	297 lb	0 lb	0 lb	J7
4	Point	1-11-4		Top	116 lb	310 lb	0 lb	0 lb	J7
5	Point	2-8-12		Top	111 lb	297 lb	0 lb	0 lb	J7

Continued on page 2...

Notes

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Lumber

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Handling & Installation

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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 v

Manufacturer Info
Forex
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NASCOR

KOTT

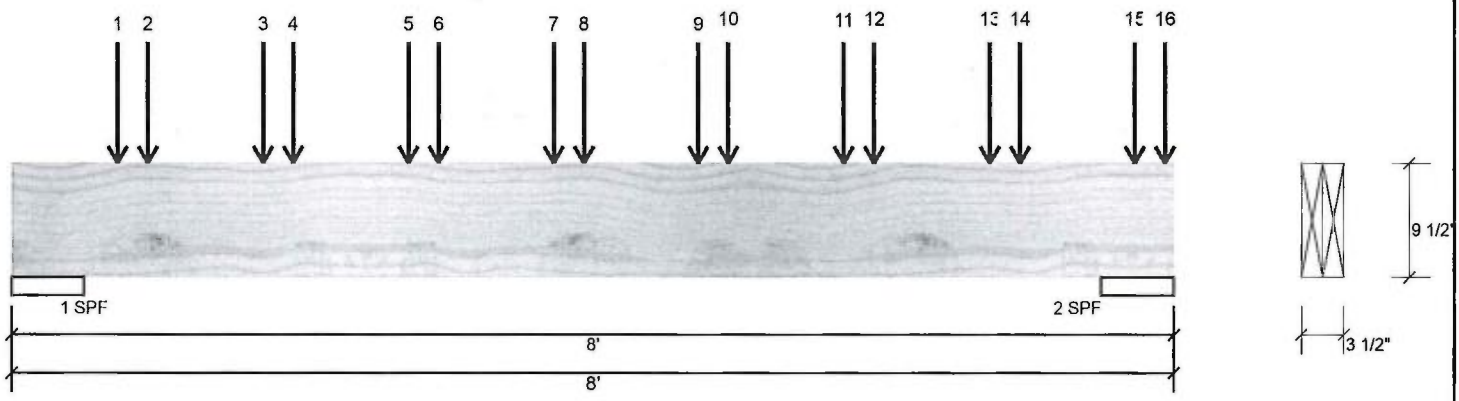
isDesign™

Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

BBO4-A Forex 2.0E-3000Fb LVL 1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



...Continued from page 1

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
6	Point	2-11-4		Top	116 lb	310 lb	0 lb	0 lb	J7
7	Point	3-8-12		Top	111 lb	297 lb	0 lb	0 lb	J7
8	Point	3-11-4		Top	116 lb	310 lb	0 lb	0 lb	J7
9	Point	4-8-12		Top	111 lb	297 lb	0 lb	0 lb	J7
10	Point	4-11-4		Top	116 lb	310 lb	0 lb	0 lb	J7
11	Point	5-8-12		Top	111 lb	297 lb	0 lb	0 lb	J7
12	Point	5-11-4		Top	116 lb	310 lb	0 lb	0 lb	J7
13	Point	6-8-12		Top	111 lb	297 lb	0 lb	0 lb	J7
14	Point	6-11-4		Top	116 lb	310 lb	0 lb	0 lb	J7
15	Point	7-8-12		Top	50 lb	134 lb	0 lb	0 lb	J7
16	Point	7-11-4		Top	46 lb	122 lb	0 lb	0 lb	J7
	Self Weight				8 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

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This design is valid until 7/10/2021

Manufacturer Info

Forex
APA: PR-L318

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Canada
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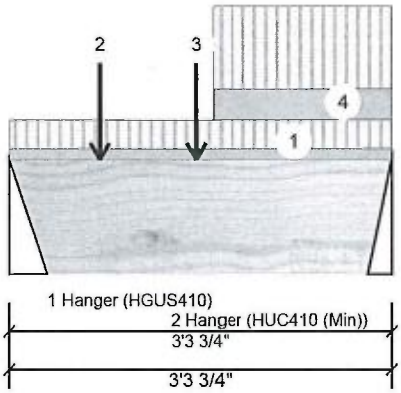
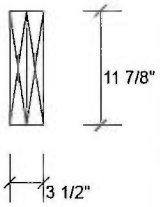
Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
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	150	83	0	0
2	169	88	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	4.000"	3%	104 / 225	329	L	1.25D+1.5L
2 - Hanger	2.500"	6%	110 / 253	363	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	246 ft-lb	1'7 1/2"	34261 ft-lb	0.007 (1%)	1.25D+1.5L	L
Unbraced	246 ft-lb	1'7 1/2"	34261 ft-lb	0.007 (1%)	1.25D+1.5L	L
Shear	246 lb	1'3 1/8"	11596 lb	0.021 (2%)	1.25D+1.5L	L
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
LL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.001 (L/46486)	1'7 3/4"	0.145 (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 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
T.L. WISE
100083566
PROVINCE OF ONTARIO

September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-3-12	(Span)1-4-8	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-9-7		Near Face	26 lb	70 lb	0 lb	0 lb	J2
3	Point	1-7-8		Near Face	33 lb	35 lb	0 lb	0 lb	F7
4	Tie-In	1-9-4 to 3-3-12	(Span) 3-11-13	Top	15 PSF	40 PSF	0 PSF	0 PSF	
	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

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905-642-4400

NASCOR

KOTT

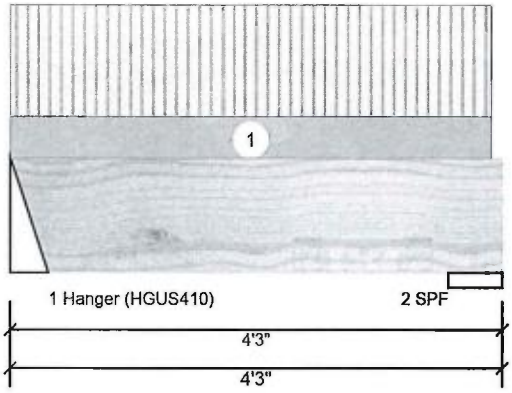
isDesign™

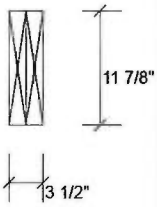
Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F7-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	35	33	0	0
2	35	34	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Hanger	4.000"	1%	41 / 52	93	L	1.25D+1.5L
2 - SPF	5.500"	1%	43 / 53	95	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	72 ft-lb	2' 3/4"	34261 ft-lb	0.002 (0%)	1.25D+1.5L	L
Unbraced	72 ft-lb	2' 3/4"	34261 ft-lb	0.002 (0%)	1.25D+1.5L	L
Shear	36 lb	1'3 1/8"	11596 lb	0.003 (0%)	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/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		

Design Notes

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7 Lateral slenderness ratio based on full section width.

September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
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	Self Weight				10 PLF				

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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

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.

Manufacturer Info
Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

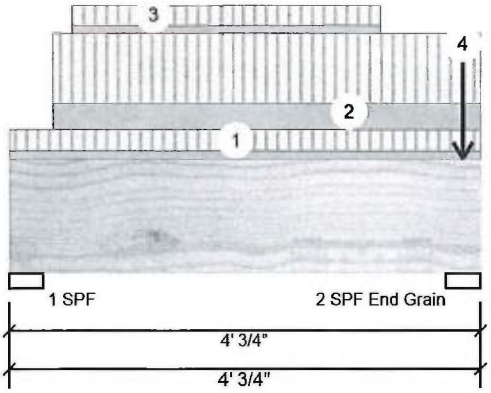
isDesign™

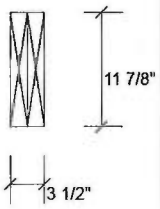
Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

F7-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	643	260	0	0
2	885	375	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	17%	325 / 965	1289	L	1.25D+1.5L
2 - SPF End Grain	3.500"	20%	469 / 1328	1797	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1215 ft-lb	2' 5/16"	34261 ft-lb	0.035 (4%)	1.25D+1.5L	L
Unbraced	1215 ft-lb	2' 5/16"	34261 ft-lb	0.035 (4%)	1.25D+1.5L	L
Shear	711 lb	2'10 1/8"	11596 lb	0.061 (6%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/34561)	2' 5/16"	0.120 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.003 (L/13799)	2' 5/16"	0.120 (L/360)	0.030 (3%)	L	L
TL Defl inch	0.004 (L/9862)	2' 5/16"	0.180 (L/240)	0.020 (2%)	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.

LICENSED PROFESSIONAL ENGINEER
T.L. WISE
100083566
PROVINCE OF ONTARIO
September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 4-0-12	(Span)3-7-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-4-8 to 4-0-12		Top	90 PLF	240 PLF	0 PLF	0 PLF	
3	Part. Uniform	0-6-8 to 3-2-8		Near Face	25 PLF	68 PLF	0 PLF	0 PLF	
4	Point	3-11-0		Near Face	88 lb	169 lb	0 lb	0 lb	F6
	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

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Manufacturer Info
Forex
APA: PR-L318

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14 Anderson Blvd, Ontario
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K2H7V1
905-642-4400

NASCOR

KOTT

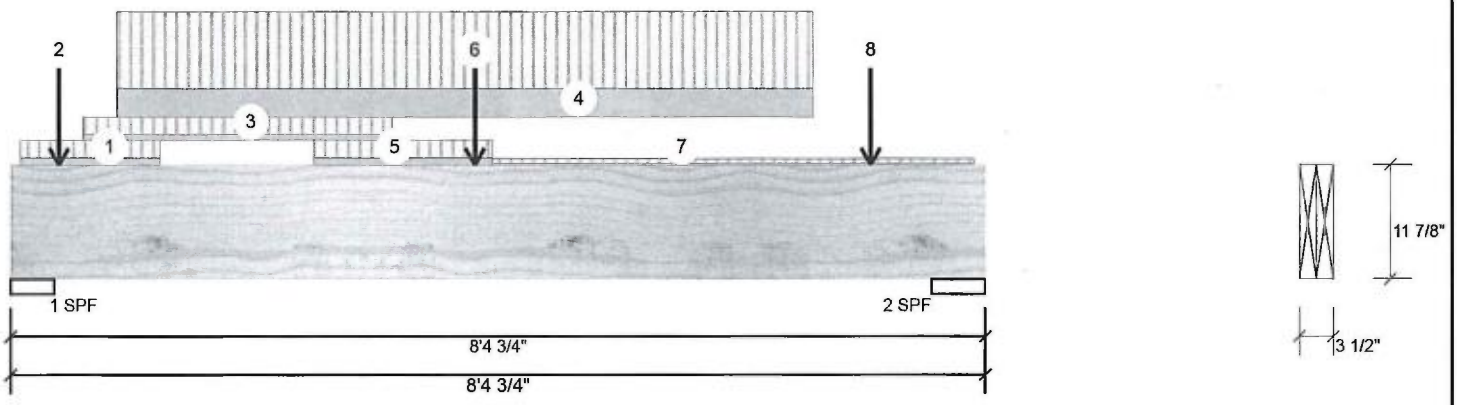
isDesign™

Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
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	1594	649	0	0
2	1377	568	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	4.500"	33%	811 / 2391	3202	L	1.25D+1.5L
2 - SPF	5.500"	23%	710 / 2066	2776	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5966 ft-lb	4'	34261 ft-lb	0.174 (17%)	1.25D+1.5L	L
Unbraced	5966 ft-lb	4'	31511 ft-lb	0.189 (19%)	1.25D+1.5L	L
Shear	3035 lb	7' 1/8"	11596 lb	0.262 (26%)	1.25D+1.5L	L
Perm Defl in.	0.016 (L/5638)	4' 3/4"	0.256 (L/360)	0.060 (6%)	D	Uniform
LL Defl inch	0.040 (L/2325)	4' 13/16"	0.256 (L/360)	0.150 (15%)	L	L
TL Defl inch	0.056 (L/1646)	4' 13/16"	0.384 (L/240)	0.150 (15%)	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.

LICENSED PROFESSIONAL ENGINEER
T.L. WISE
100083566
PROVINCE OF ONTARIO
September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-1-0 to 1-3-8	(Span)3-7-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-5-0		Near Face	77 lb	205 lb	0 lb	0 lb	J7
3	Part. Uniform	0-7-8 to 3-3-8		Far Face	25 PLF	68 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-11-0 to 6-11-0		Near Face	115 PLF	308 PLF	0 PLF	0 PLF	
5	Tie-In	2-7-8 to 4-1-12	(Span)3-7-4	Top	15 PSF	40 PSF	0 PSF	0 PSF	
6	Point	4-0-0		Far Face	83 lb	150 lb	0 lb	0 lb	F6

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
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

Manufacturer Info
Forex
APA: PR-L318

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Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

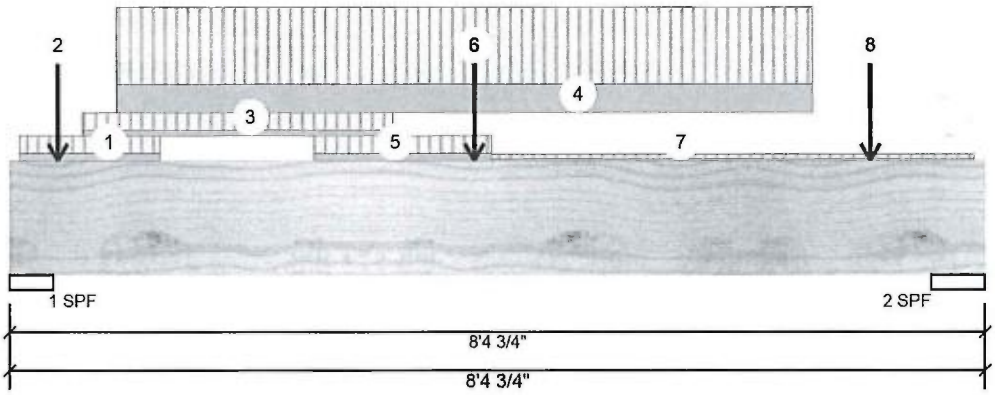
isDesign™

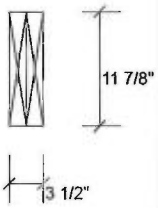
Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 1
Project #:

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

Level: Second Floor





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ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
7	Tie-In	4-1-12 to 8-3-10	(Span)0-11-3	Top	15 PSF	40 PSF	0 PSF	0 PSF	
8	Point	7-5-0		Near Face	117 lb	313 lb	0 lb	0 lb	J7
	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
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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
K2H7V1
905-642-4400

NASCOR

KOTT

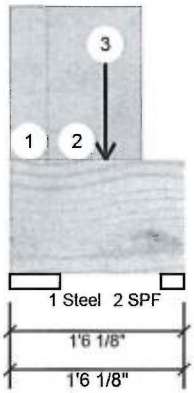
isDesign™

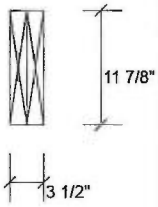
Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 2
Project #:

F15-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	72	103	0	0
2	61	53	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - Steel	5.250"	2%	129 / 108	237	L	1.25D+1.5L
2 - SPF	2.375"	3%	66 / 92	158	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	78 ft-lb	10"	33233 ft-lb	0.002 (0%)	1.25D+1.5L	L
Unbraced	78 ft-lb	10"	33233 ft-lb	0.002 (0%)	1.25D+1.5L	L
Shear	107 lb	1'4 3/8"	11248 lb	0.009 (1%)	0.9D+1.5L	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	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		

Design Notes

1 Girders are designed to be supported on the bottom edge only.
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5 Bottom braced at bearings.
6 Lateral slenderness ratio based on full section width.

LICENSED PROFESSIONAL ENGINEER
T.L. WISE
100083566
PROVINCE OF ONTARIO
September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 0-4-0		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-4-0 to 1-1-12		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Point	0-10-0		Near Face	50 lb	133 lb	0 lb	0 lb	J10
	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

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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
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6. For flat roofs provide proper drainage to prevent ponding

This design

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Manufacturer Info
Forex
APA: PR-L318

Kott Lumber Company
14 Anderson Blvd, Ontario
Canada
K2H7V1
905-642-4400

NASCOR

KOTT

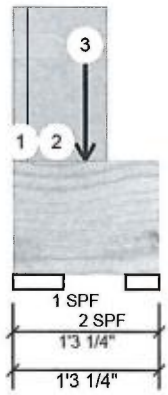
isDesign™

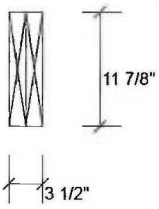
Client: GREENPARK
Project:
Address:

Date: 9/7/2018
Designer: R O
Job Name: MILLWOOD 2-ELEV 3
Project #:

F15-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	108	101	0	0
2	65	41	0	0

Bearings and Factored Reactions

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	5.250"	3%	126 / 162	288	L	1.25D+1.5L
2 - SPF	3.500"	2%	52 / 98	149	L	1.25D+1.5L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	58 ft-lb	7 1/2"	34261 ft-lb	0.002 (0%)	1.25D+1.5L	L
Unbraced	58 ft-lb	7 1/2"	34261 ft-lb	0.002 (0%)	1.25D+1.5L	L
Shear	190 lb	1'4 3/8"	11596 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	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		

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T.L. WISE
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PROVINCE OF ONTARIO
September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Part. Uniform	0-0-0 to 0-1-8		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
2	Part. Uniform	0-1-8 to 0-9-12		Top	80 PLF	0 PLF	0 PLF	0 PLF	Wall Self Weight
3	Point	0-7-8		Far Face	65 lb	173 lb	0 lb	0 lb	J9
	Self Weight				10 PLF				

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Lumber

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NASCOR

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