## **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 <u>only</u> 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 <a href="http://www.nascor.ca">http://www.nascor.ca</a>.

#### 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 preauthorization.



# **MULTIPLE MEMBER CONNECTIONS**

#### Conventional Connections (for uniform distributed loads)

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

#### Conventional connection notes:

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

#### LVL Connections (for uniform distributed loads)

11 7/8" - 14" 16"-18" 4-ply LVL LVL (Top load only) LVL 3 1/4" mln For side-loaded 4-ply LVL Connections, please consult the 3 1/4" ml 3 1/4" ml engineering calculation page for the component and the Nascor layout LVL connection notes:

- -Nails to be 3 1/2" spiral wire nails.
- -Nalls to be on 2 spiral with other hands and bottom of the member. Start all nalls 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 Screws (Both sides of point load)

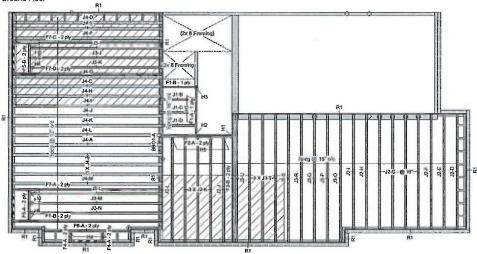
#### Vertical I-Joist connection notes:

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

KOTT 3228 Moodle Drive Ottawa, ON K2H 7V1 Ph: 613-838-2775

MULTI -PLY CONNECTION DETAILS





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.



Legend



Load from Above Wall Wall Opening Norbord Rimboard Plus 1.125 X 9.6 NJ 9.5 NJ40U 9.5 NJH 95

2. Nascor CCMC - 13535-R



1. OBC 2012 O.Reg 332/12 as amended

3. LVL CCMC -14058-R

4. CAN/CSA-086-09

5. CCMC -12787-R APA PR-L310(C)

Label	Description	Width	Depth	Qty	Piles	Pcs	Length
F3	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	14-0-0
F2	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	8-0-0
Ff	Forex 2.0E-3000Fb LVL	1.75	9.5			2	6-0-0
I Joist (	Flush)						
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F7	NJ	1.5	9.5	4	2	8	16-0-0
F6	NJ	1.5	9.5	1	2	2	10-0-0
F5	ИJ	1.5	9.5	2	2	4	4-0-0
F4	ИЛ	1.5	9.5	2	2	4	2-0-0
J4	NJ40U	3.5	9.5			15	16-0-0
J3	HLN	2.5	9.5			15	14-0-0
J2	HLM	2.5	9.5			14	12-0-0
J1	NJH	2.5	9.5			3	4-0-0
Rim Bo	ard						
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
Rt	Norbord Rimboard Plus 1,125 X 9.5	1.125	9.5			12	12
Blockin	g						
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BLK1	NJH	2.5	9.5	LinFt		Varies	16-0-0

					DealivGilder	Member	
Label	Pcs	Description	Skew	Slope	fasteners	fasteners	]
H1	1	HGUS410			46 16d	16 16d	1
H2	1	HUS1.81/10			30 164	10 16d	1
НЗ	1	HUCQ1.81/9- SDS					]
H4	6	LT2-159			4 10dx1 1/2	2 10dx1 1/2	1
H5	14	LT259			4 10dx1 1/2	2 10dx1 1/2	7

NOTES:

Hanger

. Framer to verify dimensions on the architectural drawings. Double joist only require filler/backer ply when supporting

another member using a face-mounted hanger.

I Install 2x4 blocking @ 24\* old under parallel non-load bearing walls.

I loated single-ply flush window header along inside face of

, instail single-py flush whodow heapor along inside race or rimboard/flinglost.

Refer to Nascor specifier guide for installation works.

Squash block a recommended to be installed at end bearing on all first level joists which support loading from above exceeding two levels floor or toof.

Load transfer blocks to be installed under all point loads.
It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

Refer to Multiple Member Connection Detail to pty to ply nailing or

Rim parallel to joists: 1-1/8" rimboard with 2"x 4" block (1/15" longer than rim parametru plasis. 1-10 Introductivate 2 x = 0.000 (1/10 bullet under the fire work). All other components and shructural elements supporting the floor system such as beams, walls, columns, and foundation walts and footings including anchorage of components and bracing for lateral stability are the responsibility of Others.

Hatch area 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. Design GROUP INC. 64 Jardin Dr., Suite 3A, Vaughan, ON Date: Rev.3; Aug.30,2018 Project No: 18-24 Model: Clover 11A

ayout Name CLOVER 11A-1 Design Method LSD Description MINNISALE HOMES BRAMPTON, ONT. Created July 03, 2018 Builder GREENPARK Sales Rep RM esigner Shipping roject Builder's Project Kott Lumber Company 14 Anderson Blvd Stouffville, Ontario Canada L4A 7X4 905-642-4400 Job Path D:\Usera\rochavilo\WORK FROM HOME\GREENPARK\MINN\SALE HOMES\CLOVER 11A\FLOOR\REV **CLOVER 11AIsI** Ground Floor LSD Design Method Building Code NBCC 2010 / OBC Floor Loads Live 40 Dead 15 Deflection Joist LL Span L/ 480 TL Span L/ 360 LL Cant 2L/ 480 360 TL Cant 21/ Deflection Girder LL Span L/ 360 240 TL Span L LL Cant 2L/ 480 TL Cent 2L/ 360 Decking Deck SPF Plywood Thickness 3/4" Fastener Nailed & Glued Vibration



Project: Address: Date:

Brg

9/7/2018

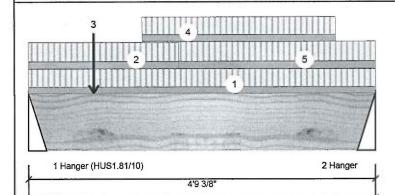
Designer: RCO Job Name:

CLOVER 11A-1

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED Level: Ground Floor



4'9 3/8"

Wind

Page 1 of 1

Member Info	rmation		
Туре:	Girder	Application:	Floor (Residential)
Plies:	1	Design Method:	LSD
Moisture Conditio	on: 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			

**Unfactored Reactions UNPATTERNED Ib (Uplift)** Dead

Live

_				
1	497	196	0	0
2	487	191	0	0

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Analysis R	esults					
Dead:	15 PSF					
Floor Live:	40 PSF					

0.092 (9%) 1.25D+1.5L L 1048 ft-lb 2'4 3/4" 11362 ft-lb Moment 0.126 (13%) 1.25D+1.5L L 1048 ft-lb 2'4 3/4" 8295 ft-lb Unbraced 760 lb 11 3/4" 4638 lb 0.164 (16%) 1.25D+1.5L L Shear Perm Defl in. 0.004 2'4 11/16" 0.147 (L/360) 0.030 (3%) D Uniform (L/12248) LL Defl inch 0.011 (L/4802) 2'4 11/16" 0.147 (L/360) 0.070 (7%) L L TL Defl inch 0.015 (L/3449) 2'4 11/16" 0.220 (L/240) 0.070 (7%) D+L

Bearings and Factored Reactions Bearing Length Cap. React D/L lb Total Ld. Case Ld. Comb. 3.000" 25% 244 / 745 990 L 1.25D+1.5L Hanger

3.000" 25% 1.25D+1.5L 239 / 730 970 L 2 -Hanger



- 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



September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Commence
1	Tie-In	0-0-0 to 4-9-6	(Span)3-6-8	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 2-0-14	(Span)3-10-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	0-10-13		Far Face	32 lb	84 lb	0 lb	0 lb	J1
4	Part, Uniform	1-6-13 to 4-2-13		Far Face	26 PLF	70 PLF	0 PLF	0 PLF	
5	Tie-In	2-0-14 to 4-9-6	(Span) 3-11-12	Тор	15 PSF	40 PSF	0 PSF		hru Framing Squash Block is dat all point loads over bearings
	Self Weight				4 PLF				
									o Multiple Member Connection for ply to ply nailing or bolting ements

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

#### Lumber

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corr

chemicals

Handling & Installation

- andling & Installation

  LVL beams must not be cut or drilled
  Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals

  Damaged Beams must not be used
  Design assumes top edge is laterally restrained
  Provide lateral support at bearing points to avoid lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA; PR-L318

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** This de

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



IN THE DESIGN OF THIS COMPONENT.



Project: Address:

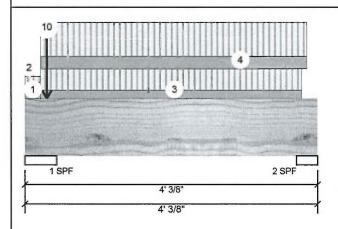
9/7/2018 Date: Designer:

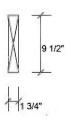
**RCO** 

CLOVER 11A-1

Job Name: Project #:

Forex 2.0E-3000Fb LVL 1.750" X 9.500" - PASSED Level: Ground Floor





1.25D+1.5L

Page 1 of 2

Member Info	rmation			Unfactor	ed Reacti	ons UNPATTERN	ED lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	1	Design Method:	LSD	1	1058	586	0	0
Moisture Condition	on: Dry	Building Code:	NBCC 2010 / OBC 2012	2	116	51	0	0
Deflection LL:	360	Load Sharing:	No					
Deflection TL:	240	Deck:	Not Checked	1				
Importance:	Normal	Vibration:	Not Checked					
General Load								
Floor Live:	40 PSF			Bearings	and Facto	ored Reactions		
Dead:	15 PSF			Bearing	Length	Cap. React D/L lb	Total Ld. Case	Ld. Comb.
				1-SPF	5.250"	51% 732 / 1587	2319 L	1.25D+1.5L
		l l						

2-SPF 3.500"

6%

64 / 174

238 L

**Analysis Results** 

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	197 ft-lb	2'1 1/16"	11362 ft-lb	0.017 (2%)	1.25D+1.5L	L
Unbraced	197 ft-lb	2'1 1/16"	9506 ft-lb	0.021 (2%)	1.25D+1.5L	L
Shear	124 lb	1'2"	4638 lb	0.027 (3%)	1.25D+1.5L	L
Perm Defl in.	0.001 (L/63986)	2'1 1/8"	0.114 (L/360)	0.010 (1%)	D	Uniform
LL Defl inch	0.001 (L/27704)	2'1 1/8"	0.114 (L/360)	0.010 (1%)	L	L
TL Defi inch	0.002 (L/19333)	2'1 1/8"	0.171 (⊔⁄240)	0.010 (1%)	D+L	L



#### Design Notes

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

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 0-2-10	(Span)0-11-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 0-1-6		Тор	2 PLF	0 PLF	0 PLF	0 PLF	
3	Tie-In	0-2-10 to 3-9-12	(Span)1-3-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
4	Part. Uniform	0-2-10 to 3-10-10		Тор	15 PLF	40 PLF	0 PLF	0 PLF	
5	Point	0-3-10		Тор	382 lb	749 lb	0 lb	0 lb	F10 F10
6	Point	0-3-10		Тор	1 lb	2 lb	0 ІЬ	0 lb	J1

This des

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 sultability of the Intended application, and to verify the dimensions and loads.

#### Lumber

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or con

#### Handling & Installation

- landling & Installation

  IVL beams must not be cut or drilled

  Refer to manufacturer's product information regarding installation requirements, multi-py fastening details, beam stemgth values, and code approvals

  Damaged Beams must not be used

  Dealign assumes top edge is laterally restrained;

  Provide lateral support at bearing points to avoid lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

APA: PR-L318

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.



Project:

Address:

9/7/2018 Date:

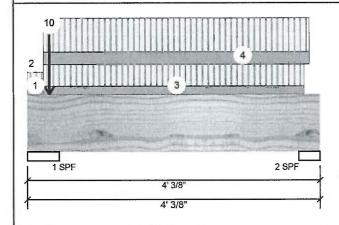
RCO Designer:

Job Name: CLOVER 11A-1

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED Level: Ground Floor



Page 2 of 2

I	Continued f	rom page 1							
ı	ID	Load Type	Location Trib Width	Side	Dead	Live	Snow	Wind	Comments
ı	7	Point	0-3-10	Тор	51 lb	129 lb	0 lb	0 lb	J6
ı	8	Point	0-3-10	Тор	57 lb	0 lb	0 16	0 lb	Wall Self Weight
ı	9	Point	0-3-10	Тор	21 lb	51 lb	0 lb	0 lb	J6
ı	10	Point	0-3-10	Тор	18 lb	0 lb	0 lb	0 lb	Wall Self Weight
ļ		Self Weight			4 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

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

chemicals

Handling & Installation

- andfling & Installation.

  LVL beams must not be cut or drilled.
  Refer to manufacturer's product information regarding installation requirements, multi-ply festening details, beam strength velues, and code approvals.

  Damaged Beams must not be used.
  Design assumes top adge is laterally restricted.
  Provide lateral support at beering points to avoid lateral displacement and rotation.

This design is valid until 7/10/2021

Manufacturer Info For flat roots provide proper drainage to propording

Forex APA: PR-L318

9 1/2

Wind

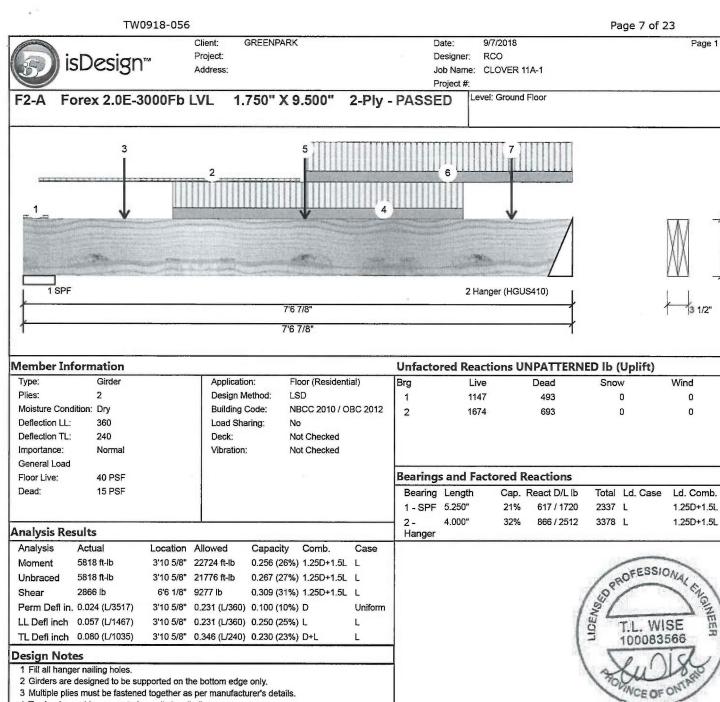
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0

Ld. Comb.

1 25D+1 5I

1.25D+1.5L



- 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

ш.	, Lateral sieride	illess ratio based of	Tiuli Section Widur.							
Γ	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
l	1	Tie-In	0-0-0 to 0-4-2	(Span)0-11-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	2	Tie-In	0-2-10 to 3-9-12	(Span)1-0-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	3	Point	1-4-12		Near Face	107 lb	251 lb	0 lb	0 lb	J2
l	4	Part. Uniform	2-0-12 to 6-0-12		Near Face	90 PLF	215 PLF	0 PLF	0 PLF	
	5	Point	3-10-10		Far Face	196 lb	497 lb	0 lb	0 lb	F1
l	6	Part. Uniform	3-10-12 to 7-6-14		Тор	90 PLF	240 PLF	0 PLF	0 PLF	

This d

Continued on page 2...

#### Notes

Calculated Structured Designs is responsible only of the structural edequacy 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

Dry service conditions, unless noted other
 LVL not to be treated with fire retardant

#### chemicals

Handling & Installation

LIVL beams must not be cut or drilled
 Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code

papprovals

Damaged Beams must not be used

Design assumes top edge is leterally restrained

Provide lateral support at bearing points to avoid

lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info

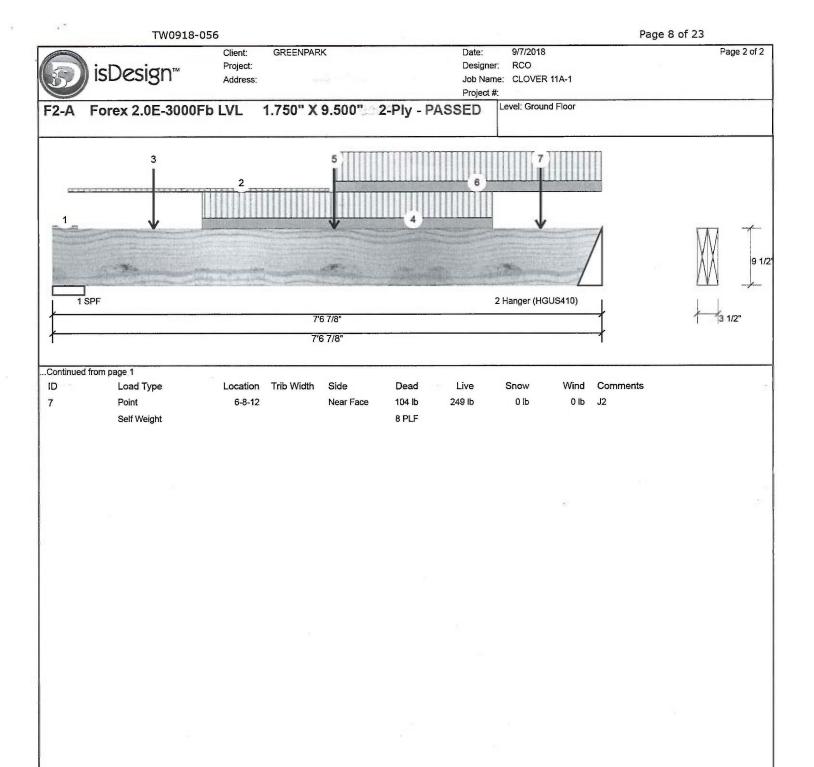
Forex APA: PR-L318

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

September 13, 2018





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

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

candidated structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractive ensure the component suitability of the Intended

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosi

Handling & Installation

and ling & installation
LVL beams must not be cut or drilled
Refer to manufacturer's product information
regarding installation requirements, multi-ply
fastening details, beam strongth values, and code
approvals
Demaged Beams must not be used

Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation

This design is valid until 7/10/2021

Manufacturer Info Forex

APA: PR-L318



Client:

Project:

GREENPARK

Address:

9/7/2018 Date:

RCO Designer:

Job Name: CLOVER 11A-1

Project #:

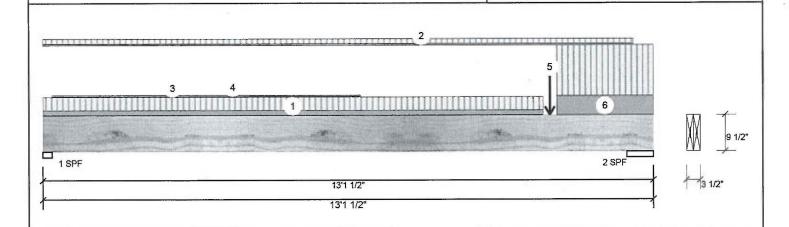
Forex 2.0E-3000Fb LVL

1.750" X 9.500"

2-Ply - PASSED

Level: Ground Floor,

Unfactored Reactions UNPATTERNED Ib (Uplift)



IAIGILIDEL TITLOL	IIIquoII			omactor	d Hear	10113	THE PROPERTY OF	10 (	o bill cy	
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snow	1	Wind
Plies:	2	Design Method:	LSD	1	404		223	C	)	0
Moisture Condition	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	1729		762	(	)	0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked	1						
General Load										
Floor Live:	40 PSF			Bearings	and Fact	ored F	Reactions			
Dead:	15 PSF			Bearing L	_ength	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
		11		1-SPF 2	2.375"	17%	279 / 606	885	L	1.25D+1.5L
				2-SPF 6	8.875"	24%	952 / 2594	3546	L	1.25D+1.5L

#### **Analysis Results**

Member Information

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5663 ft-lb	10'10 7/8"	22724 ft-lb	0.249 (25%)	1.25D+1.5L	L
Unbraced	5663 ft-lb	10'10 7/8"	19648 ft-lb	0.288 (29%)	1.25D+1.5L	L
Shear	3325 lb	11'9 7/8"	9277 lb	0.358 (36%)	1.25D+1.5L	L
Perm Defl in.	0.065 (L/2313)	7' 3/16"	0.416 (L/360)	0.160 (16%)	D	Uniform
LL Defl inch	0.134 (L/1118)	7'1 7/8"	0.416 (L/360)	0.320 (32%)	L	L
TL Defl inch	0.199 (L/754)	7'1 3/8"	0.624 (L/240)	0.320 (32%)	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.



September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind Comments	
1	Tie-In	0-0-0 to 10-9-2	(Span) 0-11-14	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 12-8-6	(Span)0-4-2	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Part. Uniform	0-2-7 to 6-10-0		Тор	1 PLF	0 PLF	0 PLF	0 PLF	
4	Part. Uniform	0-2-7 to 6-10-0		Тор	2 PLF	0 PLF	0 PLF	Pass Thru Framing Squash Block is required at all point loads over bearings 0 lb F2	
5	Point	10-10-14		Far Face	693 lb	1674 lb	0 lb		
6	Tie-In	11-0-10 to 13-1-8	(Span)3-10-0	Тор	15 PSF	40 PSF	0 PSF	Refer to Multiple Member Connection	
	Self Weight				8 PLF			Detail for ply to ply nailing or bolting requirements	

#### Notes

Celculated Structured Designs is responsible only of the structural adequacy of this component based on the daslgn 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

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or co.

#### chemicals

- LVL beams must not be cut or drilled
  Refer to manufacturer's product information
  regarding installation requirements, multi-piy
  fastening details, beam strength values, and code

tastening details, beam strength values, and code approvals

Damaged Beams must not be used

Design assumes top adge is laterally restrained

Provide lateral support at bearing points to avoid lateral displacement and rotation

This des

For flat roofs provide proper drainage to prevent ponding

Manufacturer Info Forex APA: PR-L318

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.







Project: Address: Date: 9/7/2018 Designer:

RCO

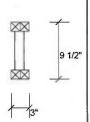
Job Name: CLOVER 11A-1

Project #:

2-Ply - PASSED 9.500"

Level: Ground Floor





Page 1 of 1

<b>Member Inf</b>	ormation						Unfacto	red React	ions U	INPATTERN	ED Ib	(Uplift)	
Type:	Girder		Application	on: F	loor (Residenti	al)	Brg	Live		Dead	Sno	w	Wind
Plies:	2		Design M	lethod: L	.SD		1	63		24		0	0
Moisture Cond	ition: Dry		Building (	Code: N	NBCC 2010 / O	BC 2012	2	59		22		0	0
Deflection LL:	360		Load Sha	nring: N	10								
Deflection TL:	240		Deck:	١	lot Checked								
Importance:	Normal		Vibration		lot Checked								
General Load													<del> </del>
Floor Live:	40 PSF						Bearing	s and Fac	tored	Reactions			
Dead:	15 PSF		h.				Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
							1-SPF	2.375"	5%	29 / 94	124	L	1.25D+1.5L
					·		2-	2.000"	4%	28 / 89	116	L	1.25D+1.5L
Analysis Re	ults						Hanger						
Analysis	Actual	Location	Allowed	Capacity	Comb.	Case							
Moment	17 ft-lb	6 1/8"	7340 ft-lb	0.002 (0%)	1.25D+1.5L	L					-	- FRCI	
Unbraced	17 ft-lb	6 1/8"	7260 ft-lb	0.002 (0%)	1.25D+1.5L	L					10	OFERRI	MAL
Shear	91 lb	10 5/8"	3080 lb	0.030 (3%)	1.25D+1.5L	L					10		181
Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)	1					1	3/		1 2
LL Defl inch	0.000 (L/999)	0	999,000 (L/0)	0.000 (0%)						1	J.	TI WI	SF m
TL Defl inch	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)						1	3	100083	SE 566
Design Not	2S						7			1	7	0 0	id
	er nailing holes.						1				10	XII	1 0×01
2 Girders are	designed to be su	apported on the	ne bottom edge	e only.							10	Con .	-MAR
	s must be fastene	-		urer's details							-	VCEOF	Ola
4 Top loads m	ust be supported	equally by al	plies.				1				Santa	mheri	3 2018

- Top loads must be supported equally by all plies.
- 5 Top flange braced at bearings.
- 6 Bottom flange braced at bearings.

100	T.L. WISE	16
LICENS	T.L. WISE 100083566	NEER
13	Sull's	6)
Sept	tember 13, 20	18

ID Trib Width Live Wind Comments Load Type Location Side Dead Snow 0-0-0 to 0-11-14 15 PSF 40 PSF 0 PSF 0 PSF Tie-In (Span)3-3-0 Тор 2 Tie-In 0-0-0 to 0-11-14 (Span) Top **15 PSF** 40 PSF 0 PSF 0 PSF 2-10-15

> 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

#### Lumber

Handling & Installation

landling & Installation.

Loist flanges must not be cut or drilled.
Refer to latest copy of the Lioist product information details for framing details, stiffener tables, web hole chart, bridging details, multiply fastening details and handling/eraction details.

Demaged Loists must not be used.
Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

This design

Provide lateral support at bearing points to avoid lateral displacement and rotation.
 Web stiffeness for point load as shown Minimum point load bearing landht>= 3.5 inches
 For flat roofs p ponding

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





Project: Address:

2010 / OBC 2012

RCO Designer: Job Name:

CLOVER 11A-1

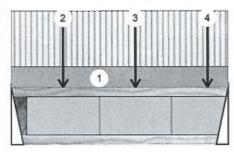
9/7/2018

Project #:

Date:

2-Ply - PASSED 9.500"

Level: Ground Floor



1 Hanger (LT2-159)

2 Hanger (LT2-159)

3'



Page 1 of 1

Member	Information
--------	-------------

Type:	Girder	Application:	Floor (Residential)
Plies:	2	Design Method:	LSD
Moisture Condition	on; Dry	Building Code:	NBCC 2010 / OBC
Deflection LL:	360	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal	Vibration:	Not Checked
General Load			
Floor Live:	40 PSF	1163	

Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	Wind
1	370	139	0	0
2	437	164	0	0

#### Analysis Results

Dead:

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	587 ft-lb	1'8 9/16"	7340 ft-lb	0.080 (8%)	1.25D+1.5L	L
Unbraced	587 ft-lb	1'8 9/16"	4678 ft-lb	0.126 (13%)	1.25D+1.5L	L
Shear	852 lb	2'10 3/4"	3080 lb	0.277 (28%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/19612)	1'8 9/16"	0.093 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.005 (L/7346)	1'8 9/16"	0.093 (L/360)	0.050 (5%)	L	L
TL Defl inch	0.006 (L/5344)	1'8 9/16"	0.140 (L/240)	0.040 (4%)	D+L	L

**Bearings and Factored Reactions** 

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 - Hanger	2.000"	28%	173 / 555	728	L	1.25D+1.5L	
2 - Hanger	2.000"	33%	205 / 655	860	L	1.25D+1.5L	

#### **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.

15 PSF

- 5 Top flange braced at bearings.
- 6 Bottom flange braced at bearings.



ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 3-0-0	(Span)1-8-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Point	0-8-9		Near Face	92 lb	246 lb	0 lb	0 lb	J3
3	Point	1-8-9		Near Face	100 lb	267 lb	0 lb		J3
4	Point	2-8-9		Near Face	71 lb	189 lb	0 lb	Pass <sub>b</sub> Tl require	hry Framing Squash Block is d at all point loads over bearings

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

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design critisnia and loadings shown. It is Mandling & Installation

1. Joint flanges must not be cut: Refer to latest copy of the Lice responsibility of the customer and/or the confractor to ensure the component suitability of the inlended application, and to verify the dimensions and loads.

#### Lumber

#### chemicals

- iandiling & Installation

  Lioist flanges must not be cut or drilled

  Refer to latest copy of the Joist product information details for framing details, stiffener tables, web hole chart, bridging details, multiply fastelling details and handling/erection details

  Damaged Joists must not be used

  Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

Provide lateral support at bearing points to avoid lateral displacement and rotation.
 Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
 For flat roofs provide READ ALL NOTES O

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 L4A 7X4 905-642-4400



This design is v







Client: GREENPARK

Project: Address: Date:

Designer: RCO Job Name:

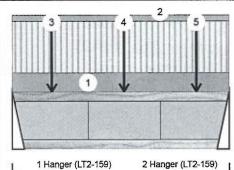
CLOVER 11A-1

9/7/2018

Project #:

2-Ply - PASSED 9.500"

Level: Ground Floor



1 Hanger (LT2-159)

Application:

Design Method:

**Building Code:** 

Load Sharing:

Deck:

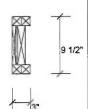
Vibration:

Floor (Residential)

Not Checked

Not Checked

NBCC 2010 / OBC 2012



Page 1 of 1

Member Information

Type: Girder Plies: Moisture Condition: Dry Deflection LL: 360 Deflection TL: 240 Importance: Normal

General Load

40 PSF Floor Live: Dead: 15 PSF Unfactored Reactions UNPATTERNED Ib (Uplift)

Brg	Live	Dead	Snow	Wind
1	395	193	0	0
Brg 1 2	410	195	0	0

**Bearings and Factored Reactions** 

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.	
1 -	2.000"	32%	241 / 593	834	L	1.25D+1.5L	
Hanger							
2 -	2.000"	33%	244 / 615	860	L	1.25D+1.5L	
Hanger							

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	642 ft-lb	1'6 9/16"	7340 ft-lb	0.087 (9%)	1.25D+1.5L	L
Unbraced	642 ft-lb	1'6 9/16"	4678 ft-lb	0.137 (14%)	1.25D+1.5L	L
Shear	852 lb	2'10 3/4"	3080 lb	0.277 (28%)	1.25D+1.5L	L
Perm Defl in.	0.002 (L/14913)	1'6 9/16"	0.093 (L/360)	0.020 (2%)	D	Uniform
LL Defl inch	0.005 (L/7160)	1'6 9/16"	0.093 (L/360)	0.050 (5%)	L	L
TL Defl inch	0.007 (L/4838)	1'6 9/16"	0.140 (L/240)	0.050 (5%)	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.



September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In		(Span)1-8-15		15 PSF	40 PSF	0 PSF	0 PSF	
2	Part. Uniform	0-0-0 to 3-0-0		Тор	4 PLF	0 PLF	0 PLF	0 PLF	
3	Point	0-6-9		Near Face	111 lb	223 lb	0 lb	0 lb	J3
4	Point	1-6-9		Near Face	127 lb	267 lb	0 lb	PassaT	hru Framing Squash Block is at all point loads over bearings
5	Point	2-6-9		Near Face	99 lb	211 lb	0 lb	0 lb	J3

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

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

Dry service conditions, unless noted otherwise
 Upist not to be treated with fire retardant or containing the conditions.

chemicals

Handling & Installation

andling & Installation

Loist flanges must not be cut or drilled

Refer to latest copy of the Justs product information details for framing details, etiffener tables, web hole chart, bridging details, multi-phy fastering details and handling/eraction details

Damaged Justs must not be used

Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum

This design is v

Nascor by Kott

Manufacturer Info

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.

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







GREENPARK Client:

Project: Address:

9/7/2018 Date:

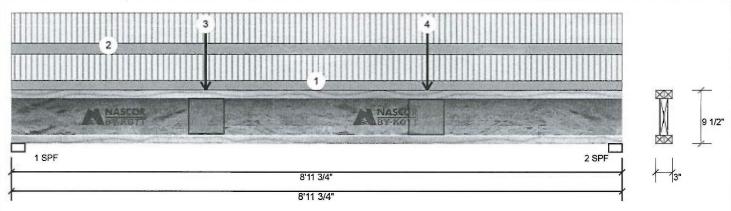
RCO Designer:

Job Name: CLOVER 11A-1

Project #:

2-Ply - PASSED

Level: Ground Floor



Member Inform	nation	10-100 m		Unfactor	ed React	ions U	NPATTERN	ED lb (	(Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Snov	w	Wind
Plies:	2	Design Method:	LSD	1	253		95		0	0
Moisture Condition:	Dry	Building Code:	NBCC 2010 / OBC 2012	2	253		95		0	0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked	1						
General Load										
Floor Live:	40 PSF			Bearings	and Fact	tored l	Reactions			
Dead:	15 PSF			Bearing I	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1 - SPF 2	2.375"	19%	118 / 380	498	L	1.25D+1.5L
				2-SPF 2	2.375"	19%	118 / 380	498	L	1.25D+1.5L

#### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	1123 ft-lb	4'5 7/8"	7340 ft-lb	0.153 (15%)	1.25D+1.5L	L
Unbraced	1123 ft-lb	4'5 7/8"	1134 ft-lb	0.991 (99%)	1.25D+1.5L	L
Shear	487 lb	1 5/8"	3080 lb	0.158 (16%)	1.25D+1.5L	L
Perm Defi in.	0.013 (L/8149)	4'5 7/8"	0.290 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.034 (L/3051)	4'5 7/8"	0.290 (1/360)	0.120 (12%)	L	L
TL Defl inch	0.047 (L/2220)	4'5 7/8"	0.435 (L/240)	0.110 (11%)	D+L	Ĺ

#### 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.



September 13, 2018

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 8-11-12	(Span)1-0-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 8-11-12	(Span)1-1-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	2-10-6		Near Face	22 lb	59 lb	0 lb	0 lb	F4
4	Point	6-1-6		Near Face	22 lb	59 lb	0 lb	0 lb	F4

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 Inlended application, and to verify the dimensions and loads.

#### Lumber

Dry service conditions, unless noted otherwise
 Uoist not to be treated with fire retardant or corrosiv

chemicals

#### Handling & Installation

- 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-pyl estating details and handlingferection details

  3. Demaged Loids must not be used

  4. Design assumes top flange to be laterally restrained by attached shealthing or as specified in engineering notics.

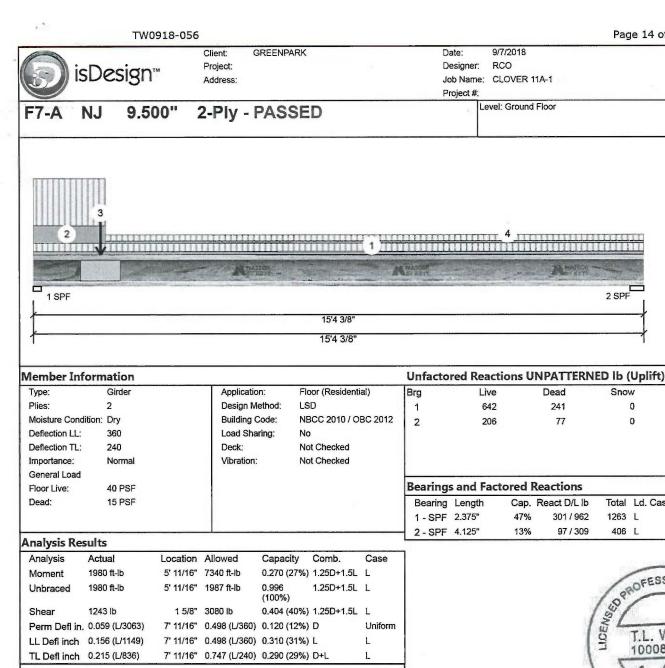
Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches.

This design

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





Snow

0

0

Total Ld. Case

1263 L

Wind

0

0

Ld. Comb.

1.25D+1.5L

1.25D+1.5L

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 4'8" o.c.

5 Bottom flange braced at bearings.

Design Notes

ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
1	Tie-In	0-0-0 to 15-4-6	(Span)0-7-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
2	Tie-In	0-0-0 to 1-9-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
3	Point	1-8-6		Near Face	164 lb	437 lb	0 lb	0 lb	F5
4	Tie-In	1-9-14 to 15-4-6	(Span)0-4-15	Тор	15 PSF	40 PSF	0 PSF		hru Framing Squash Block is d at all point loads over bearings

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

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 Lumber

Dry service conditions, unless noted otherwise
 Unist not to be treated with fire retardant or contains.

Handling & Installation

Librist flanges must not be cut or drilled

Refer to latest copy of the Jubist product information details for framing details, stiffener to lates, web hole chert, bridging details, multi-prisatening details and handling/erection details

Damaged Jubist must not be used

Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing lengths—3.5 inches
 For flat roots provide.

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

Manufacturer Info Nascor by Kott

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

IN THE DESIGN OF THIS COMPONENT.



Wind

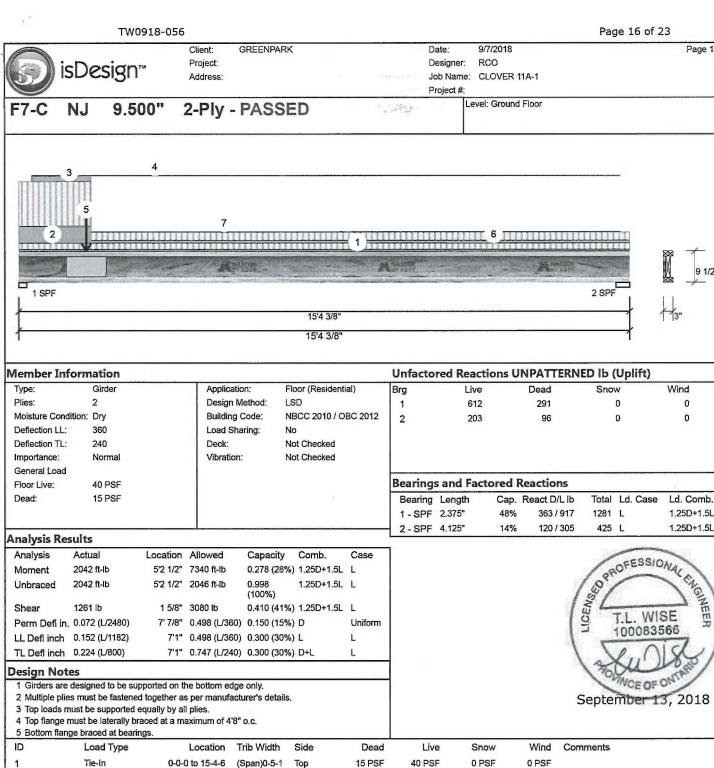
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0

Ld. Comb.

1,25D+1.5L

1.25D+1.5L



0 PSF 0 PLF 0 PLF Pass-Thru Framing Squash Block is required at all point loads over bearings

Notes

2

3

4

5

6

7

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 Lumber

Tie-In

Point

Tie-In

Part, Uniform

Part. Uniform

Part. Uniform

Dry service conditions, unless noted otherwise
 Upoist not to be treated with fire retardant or co

Handling & Installation

0-0-0 to 1-9-14

0-3-14 to 1-9-14

0-3-14 to 15-1-8

1-9-14 to 15-4-6

1-9-14 to 15-1-9

1-8-6

andling & installation.

Lioist flanges must not be cut or drilled.

Refer to latest copy of the Lioist product information details for framing details, stiffener tables, web hole chart, bridging details, multi-phy fastering details and handling/erection details.

Damaged bloists must not be used.

Design assumes top flange to be laterally restrained by attached sheathing or as specified in engineering notes.

(Span)3-3-0

(Span)0-6-15 Top

Top

Top

Top

Top

Near Face

15 PSF

8 PLF

1 PLF

195 lb

**15 PSF** 

1 PLF

40 PSF

0 PLF

0 PLF

410 lb

40 PSF

0 PLF

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
 For flat roots provid

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.

0 PSF

0 PLF

0 PLF

0 PSF

0 PLF

0 lb

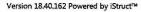
Kott Lumber Company 14 Anderson Blvd, Ontario Manufacturer Info Nascor by Kott Canada 14A7X4

requirements

Refer to Multiple Member Connection

Detail for ply to ply nailing or bolting









GREENPARK Client:

Project:

Address:

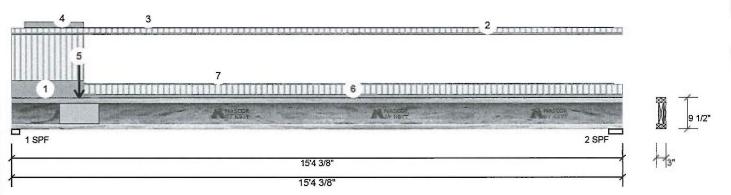
9/7/2018 Date:

Designer: RCO

Job Name: CLOVER 11A-1

2-Ply - PASSED

Level: Ground Floor



Member Infor	mation			Unfactore	d Reaction	UNPATTERN	ED lb (Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live	Dead	Snow	Wind
Plies:	2	Design Method:	LSD	1	595	294	0	0
Moisture Condition	n; Dry	Building Code:	NBCC 2010 / OBC 2012	2	201	103	0	0
Deflection LL:	360	Load Sharing:	No					
Deflection TL:	240	Deck:	Not Checked					
Importance:	Normal	Vibration:	Not Checked					
General Load								
Floor Live:	40 PSF			Bearings a	and Factore	d Reactions		
Dead:	15 PSF			Bearing L	ength C	ap. React D/L lb	Total Ld. Case	Ld. Comb.
		1		1-SPF 2	.375" 4	7% 367 / 892	1259 L	1.25D+1.5L
				2-SPF 4	.125" 1	4% 129 / 302	431 L	1.25D+1.5L

**Analysis Results** 

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	2044 ft-lb	5'4 3/16"	7340 ft-lb	0.278 (28%)	1.25D+1.5L	L
Unbraced	2044 ft-lb	5'4 3/16"	2046 ft-lb	0.999 (100%)	1.25D+1.5L	L
Shear	1240 lb	1 5/8"	3080 lb	0.403 (40%)	1.25D+1.5L	L
Perm Defl in.	0.076 (L/2357)	7'1 3/8"	0.498 (L/360)	0.150 (15%)	D	Uniform
LL Defl inch	0.149 (L/1201)	7'1 1/8"	0.498 (L/360)	0.300 (30%)	L	L
TL Defl inch	0.225 (L/796)	7'1 3/16"	0.747 (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 4'8" o.c.

5 Bottom flange braced at bearings

O DOLLOTT	nunge bruced at bearing	<b>J</b> S.						
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind Comments
1	Tie-In	0-0-0 to 1-9-14	(Span)3-3-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF
2	Tie-In	0-0-0 to 15-4-6	(Span)0-3-15	Тор	15 PSF	40 PSF	0 PSF	0 PSF
3	Part, Uniform	0-3-14 to 15-1-10		Тор	1 PLF	0 PLF	0 PLF	0 PLF
4	Part. Uniform	0-3-14 to 1-9-14		Тор	8 PLF	0 PLF	0 PLF	0 PLF Pass-Thru Framing Squash Block is
5	Point	1-8-6		Far Face	193 lb	395 lb	0 ib	required at all point loads over bearings
6	Tie-In	1-9-14 to 15-4-6	(Span)0-8-1	Тор	15 PSF	40 PSF	0 PSF	0 PSF
7	Part. Uniform	1-9-14 to 15-1-10		Тор	2 PLF	0 PLF	0 PLF	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 wrift the dimensions and loads.

#### Lumber

Dry service conditions, unless noted otherwise
 Upist not to be treated with fire retardant or continuous.

#### chemicals

#### Handling & Installation

- Handling & Installation

  1. Noist flespes must not be cut or drilled

  2. Refer to istest copy of the Noist product information
  details for framing details, stiffener tables, web hole
  chart, bridging details, multi-ply destening details and
  handlingleraction details

  3. Demaged Noists must not be used

  1. Design assumes top flenge to be laterally restrained
  by attached sheathing or as specified in engineering
  notes.

This design is v

Provide lateral support at bearing points to avoid lateral displacement and rotation
 Web stiffeners for point load as shown Minimum point load bearing length>= 3.5 inches
 Ten 1945 routh trouble.

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

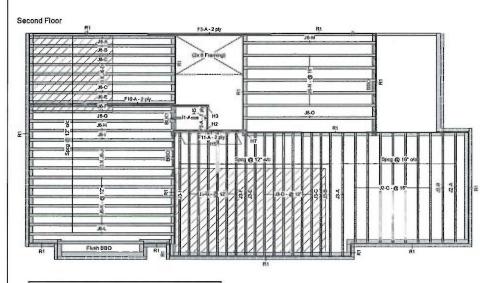
Kott Lumber Company 14 Anderson Blvd, Ontario Canada L4A 7X4 905-642-4400

T.L. WISE 100083566

100083566

WINCE OF ONTAR

September 13, 2018



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.



Load from Above Norbord Rimboard Plus 1,125 X 9.5 NJ60U 9.5 NJH95 Forex 2.0E-3000Fb LVL 1.75 X 9.5

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

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Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F10	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	20-0-0
F3	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	14-0-0
F11	Forex 2.0E-3000Fb LVL	1.75	9.5	1	2	2	10-0-0
F9	Forex 2.0E-3000Fb LVL	1.75	9.5			1	4-0-0
I Joist (	Flush)						
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
J6	NJBOU	3,5	9.5			29	16-0-0
J3	NJH	2.5	9.5			18	14-0-0
J2	NJH	2.5	9.5			9	12-0-0
Jİ	NJH	2.5	9.5			1	4-0-0
Rim Bo	ard						
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
R1	Norbord Rimboard Plus 1,125 X 9.5	1.125	9.5			14	12
Blockin	g						
Label	Description	Width	Depth	Qty	Plies	Pcs	Length
BLK1	NJH	2.5	9.5	LinFt		Varies	2-0-0

Member Label Pcs Description Skew Slope fasteners fasteners 312 I HUS1.81/10 30 16d 10 16d НЭ 1 HUCQ1.81/9-H5 8 LT259 4 10dx1 1/2 2 10dx1 1/2 H7 1 LT259

#### NOTES:

- Framer to verify dimensions on the architectural drawings.
   Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.
- . Install 3rd blocking @ 24\* o/c under parallel non-toad bearing walls.

  Jinstall 3rd blocking @ 24\* o/c under parallel non-toad bearing walls.
- Install single-py has manyor in the company of the
- Load transfer blocks to be installed under all point loads. It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

Refer to Multiple Member Connection Detail to ply to ply nailing or

Rim parallel to joists: 1-16" rimboerd with 2"x 4" block (1/16" longer than rim depth @ 16" o/c). All other components and shucksal sidenests supporting the foor system such as beams, while, columns, and foundation walls and footings including anchonage of components and bracing for lastical stability are the responsibility of Others.

Hatch area represents ceramic filed 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 GROUPING 64 Jardin Dr., Suite 3A, Vaughan, ON Date: Rev.3; Aug.30,2018 Project No: 18-24 Model: Clover 11A

NASCO Layout Name CLOVER 11A-1 Design Method LSD Description MINNISALE HOMES BRAMPTON, ONT. Created July 03, 2018 Builder GREENPARK Sales Rep RM Designer RCO Shipping Project Builder's Project Kott Lumber Company 14 Anderson Blvd Stouffville, Ontario L4A 7X4 905-642-4400 Job Path D:Wsers/tochsvillo/WORK FROM HOME/GREENPARK/MINNISALE HOMES/CLOVER 11A/FLOOR/REV Second Floor LSD Design Method Building Code NBCC 2010 / OBC Floor Loads Líve 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/ 360 240 TL Span U 480 LL Cant 2L/ TL Cant 2L/ 360 Decking Deck SPF Plywood Thickness 5/87 Fastener Nailed & Glued Vibration Gypsum 1/2" Ceiling



Client:

Project:

GREENPARK

Address:

9/7/2018 Date:

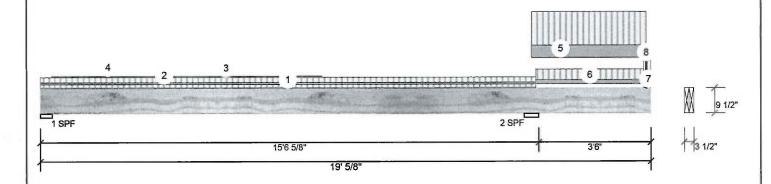
RCO Designer:

Job Name: CLOVER 11A-1

Forex 2.0E-3000Fb LVL

1.750" X 9.500" 2-Ply - PASSED

Level: Second Floor



Member Infor	mation			Unfacto	red Reac	tions U	INPATTERN	IED lb (	Uplift)	
Type:	Girder	Application:	Floor (Residential)	Brg	Live		Dead	Sno	N	Wind
Plies:	2	Design Method:	LSD	1	83		105		0	0
Moisture Conditio	n: Dry	Building Code:	NBCC 2010 / OBC 2012	2	749		382		0	0
Deflection LL:	360	Load Sharing:	No							
Deflection TL:	240	Deck:	Not Checked							
Importance:	Normal	Vibration:	Not Checked							
General Load										
Floor Live:	40 PSF			Bearing	s and Fac	tored	Reactions			
Dead:	15 PSF	1		Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
				1-SPF	4.375"	4%	131 / 234	365 (-7)	L_	1.25D+1.5L
				2-SPF	5.500"	14%	478 / 1124	1602	LL	1.25D+1.5L

#### **Analysis Results**

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Neg Moment	-2241 ft-lb	15'6 5/8"	22724 ft-lb	0.099 (10%)	1.25D+1.5L	_L
Unbraced	-2241 ft-lb	15'6 5/8"	18268 ft-lb	0.123 (12%)	1.25D+1.5L	_L
Pos Moment	1168 ft-lb	6'11 9/16"	20906 ft-lb	0.056 (6%)	1.25D+1.5L	L_
Unbraced	1168 ft-lb	6'11 9/16"	18123 ft-lb	0.064 (6%)	1.25D+1.5L	L_
Shear	855 lb	16'4 1/8"	9277 lb	0.092 (9%)	1.25D+1.5L	L
Perm Defl in.	0.018 (L/9997)	6'7 11/16"	0.501 (L/360)	0.040 (4%)	D	Uniform
LL Defl inch	0.055 (L/3278)	8'11 3/4"	0.501 (L/360)	0.110 (11%)	L	_L
TL Defl inch	0.065 (L/2759)	7'5 1/8"	0.751 (L/240)	0.090 (9%)	D+L	L_
LL Cant	0.084 (21/995)	Rt Cant	0.200 (2L/480)	0.422 (42%)	L	_L
TL Cant	0.092 (2L/911)	Rt Cant	0.300 (2L/360)	0.307 (31%)	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 Tie-down connection required at bearing 1 for uplift 7 lb (Combination 0.9D+1.5L, Load Case
- 5 Top braced at bearings.
- 6 Bottom braced at bearings.
- 7 Lateral slenderness ratio based on full section width.

#### 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

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corros

#### chemicals

Handling & Installation

- andfling & Installation.

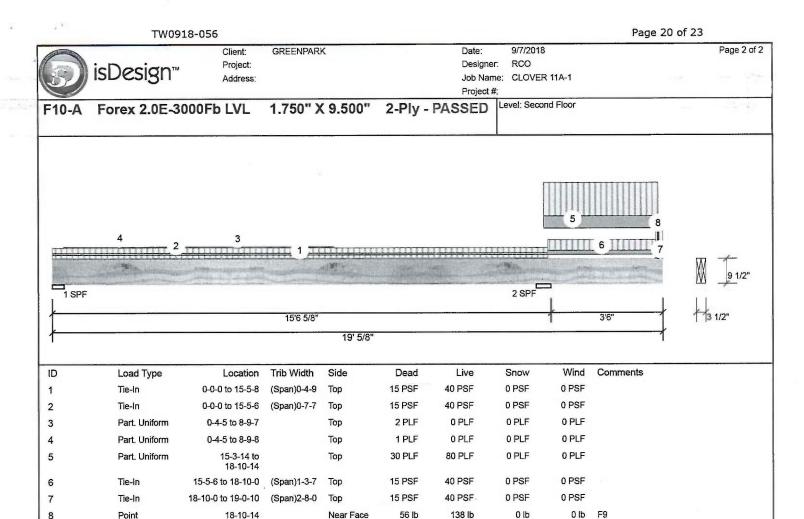
  LVL beams must not be cut or drilled.
  Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength velues, and code approvals.
  Demaged Beams must not be used.
  Design assumes top edge is laterally restrehed.
  Provide lateral support at bearing points to evoid lateral displacement and rotation.
- For flat roofs provide proper drainage to prevent ponding

This design

Manufacturer Info

Forex APA: PR-L318

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.



8 PLF

Near Face

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

8

Point

Self Weight

il adequacy of this component based on the criteria and loadings shown. It is the billity of the customer and/or the contractor to the component suitability of the intended on, and to verify the disease.

Dry service conditions, unless noted otherwise
 LVI, not to be treated with fire retardant or corrosive

Handling & Installation

18-10-14

Alfolling of instantance.

LVL beams must not be out or drilled

Refer to manufacturer's product information
regarding installation requirements, multi-ply
fastening details, beam strength values, and code

approvals
Damaged Beams must not be used

Design assumes top edge is laterally restrained Provide lateral support at bearing points to avoid lateral displacement and rotation

For flat roofs provide proper drainage to prevent conding

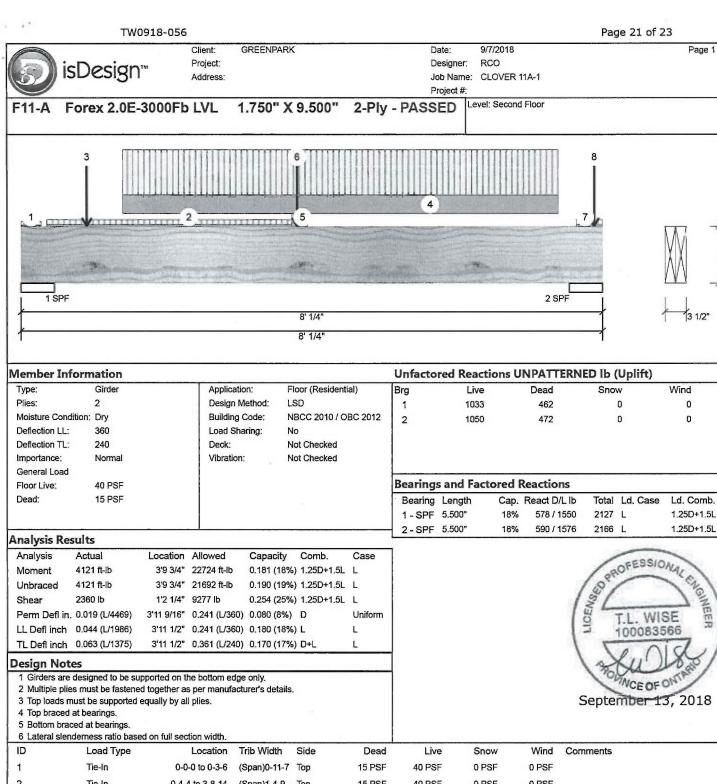
This design is valid until 7/10/2021

Manufacturer Info

Forex APA: PR-L318

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Γ	ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments
l	1	Tie-In	0-0-0 to 0-3-6	(Span)0-11-7	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	2	Tie-In	0-4-4 to 3-8-14	(Span)1-4-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
l	3	Point	0-10-14		Near Face	86 lb	204 lb	0 lb	0 lb	J3
ĺ	4	Part. Uniform	1-4-14 to 7-4-14		Near Face	109 PLF	258 PLF	0 PLF	0 PLF	
l	5	Tie-In	3-8-14 to 3-11-8	(Span)2-8-0	Тор	15 PSF	40 PSF	0 PSF	0 PSF	
	6	Point	3-9-12		Far Face	55 lb	134 lb	0 lb	0 lb	F9

This des

Continued on page 2...

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 Lumber

Dry service conditions, unless noted otherwise.
 LVL not to be treated with fire retardant or

#### Handling & Installation

- LVL beams must not be cut or drilled
  Refer to manufacturer's product information
  regarding installation requirements, mutti-ply
  fastening details, beam strength values, and code
- approvais
  Damaged Beams must not be used
  Design assumes top edge is laterally re
  Provide lateral support at bearing po-lateral displacement and rotation

For flat roofs provide proper drainage to prevent ponding

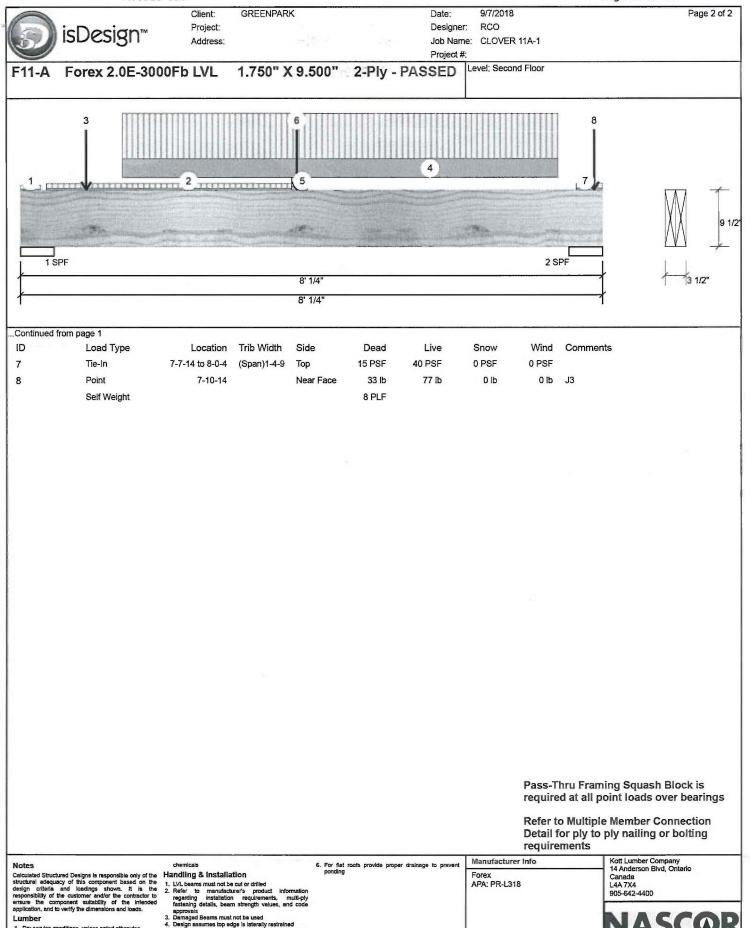
Manufacturer Info

Forex APA: PR-L318

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.







This design is valid until 7/10/2021



Project: Address:

Date: Designer:

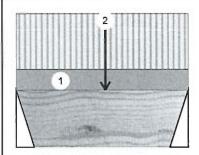
9/7/2018 RCO

Job Name: CLOVER 11A-1

Project #:

Forex 2.0E-3000Fb LVL

1.750" X 9.500" - PASSED Level: Second Floor



1 Hanger (HUS1.81/10) 2 Hanger

2'4 1/2"

2'4 1/2"



Page 1 of 1

Member Information								
Туре:	Girder	Application:	Floor (Residential)					
Plies:	1	Design Method:	LSD					
Moisture Condition	on: 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	1	135					

Unfactored Reactions UNPATTERNED Ib (Uplift) Bra Live

Brg	Live	Dead	Snow	Wind
1	134	55	0	0
2	138	56	0	0

**Bearings and Factored Reactions** Cap. React D/L lb Bearing Length 3.000"

7%

3.000"

Hanger

Hanger

Total Ld. Case 68 / 201 269 L 7%

70 / 207

278 L

1.25D+1.5L

Ld. Comb.

1.25D+1.5L

**Analysis Results** 

Γ	Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
l	Moment	167 ft-lb	1'2 13/16"	11362 ft-lb	0.015 (1%)	1.25D+1.5L	L
ı	Unbraced	167 ft-lb	1'2 13/16"	10730 ft-lb	0.016 (2%)	1.25D+1.5L	L
l	Shear	127 lb	1'4 3/4"	4638 lb	0.027 (3%)	1.25D+1.5L	L
l	Perm Defl in.	0.000 (L/999)	0	999.000 (L/0)	0.000 (0%)		
	LL Defl inch	0.001 (L/30185)	1'2 13/16"	0.067 (L/360)	0.010 (1%)	L	L
	TL Defl inch	0.001 (L/21630)	1'2 13/16"	0.100 (L/240)	0.010 (1%)	D+L	L

**Design Notes** 

1 Fill all hanger nailing holes.

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

4 Bottom braced at bearing



September 13, 2018

4 BURUIN	braced at bearings.				K.					
ID	Load Type	Location	Trib Width	Side	Dead	Live	Snow	Wind	Comments	
1	Tie-In	0-0-0 to 2-4-8	(Span)3-9-9	Тор	15 PSF	40 PSF	0 PSF	0 PSF		
2	Point	1-2-13		Far Face	34 lb	92 lb	0 lb	0 lb	J1	
	Self Weight				4 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

chural adequacy of this component based on the gn criteria and loadings shown. It is the onsibility of the customer and/or the contractor to the component suitability of the intended loading and to verify the distansions and loading.

Dry service conditions, unless noted otherwise
 LVL not to be treated with fire retardant or corrosive

Handling & Installation

approvals Damaged Beams must not be used

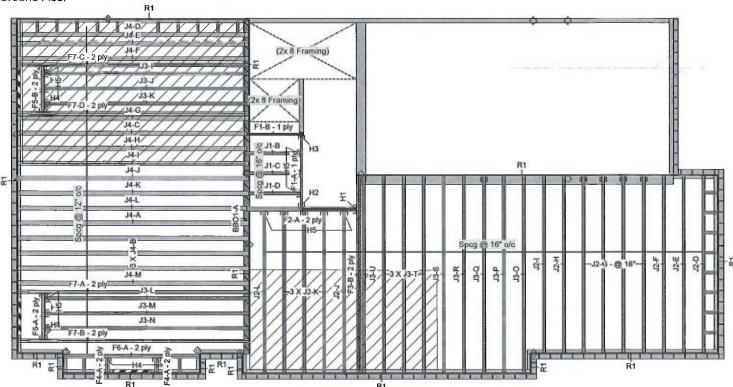
Manufacturer Info

Forex APA: PR-L318

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.

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

Version 18.40.162 Powered by iStruct™



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.

CITY OF BRAMPTON

BUILDING DIVISION

REVIEWED

DEC 1 4 2018

MARK DERKSEN



All work shall c Building Code O. 1 SE

NJ4
NJF
For

1. OBC 2012 O.Reg 332/1
Nascor CCMC - 135353. LVL CCMC -14056-R
4. CAN/CSA-086-09
5. CCMC -12787-R APA I

The supplier's layo
The permit draws

The supplier's layo installed s layout and mit drawings.

Legend 

Load from Above Wall Wall Opening Norbord Rimboard Plus 1.125 X 9.5 NJ 9.5 NJ40U 9.5 NJH 9.5 Forex 2.0E-3000Fb LVL 1.75 X 9.5

- 1. OBC 2012 O.Reg 332/12 a 2. Nascor CCMC 13535-R 1. OBC 2012 O.Reg 332/12 as amended

  - 5. CCMC -12787-R APA PR-L310(C)

Ground													
LVL/LS	L (Flus	sh)								MIACCO			
Label	Descri	iption	Widtl	De	pth	Qty	Plies	Pcs	Length	NASCOI			
F3	Forex 2.0E-3	000Fb LVL	1.7	5	9.5	1	2	2	14-0-0				
F2	Forex 2.0E-3	000Fb LVL	1.7	ō	9.5	1	2	2	8-0-0	Layout Name CLOVER 11A-1			
F1	Forex 2.0E-3	000Fb LVL	1.7	5	9.5			2	6-0-0	Design Method			
I Joist (	Flush)									THE STATE OF THE S			
Label	Descri	ption	Widt	n De	pth	Qty	Plies	Pcs	Length	Description			
F7	NJ		1.	5	9.5	4	2	8	16-0-0	MINNISALE HOMES BRAMPTON, ONT.			
F6	NJ		1.	5	9.5	1	2	2	10-0-0				
F5	NJ		1.	5	9.5	2	2	4	4-0-0	Created			
F4	NJ		1.	5	9.5	2	2	4	2-0-0	July 03, 2018			
J4	NJ40U		3.	5	9.5			15	16-0-0	Builder			
J3	NJH		2.	5	9.5			15	14-0-0	GREENPARK			
J2	NJH		2.	5	9.5			14	12-0-0	Sales Rep			
	J1 NJH		2.	5	9.5			3	4-0-0	RM			
Rim Bo	ard			- 33									
Label	Descri		Widt	n De	pth	Qty	Plies	Pcs	Length	Designer			
R1		d Rimboard 125 X 9.5			9.5			12	12	RCO Shipping			
Blockin		120 / (0.0		_	_								
	Descri	intion	Widt	De	pth	Qty	Plies	Pcs	Length	Project			
BLK1	NJH	ption	2.			_inFt	1 1103	Varies	18-0-0	Builder's Project			
Hanger			2.	,	0.0   1	.iiii t		Varios	1000	Kott Lumber Company			
riunger						Bea	am/Girder	Sur	ported	14 Anderson Blvd			
									ember	Stouffville, Ontario			
Label	Pcs	Descriptio	n	Skew	Slope	fa	steners	fas	teners	Canada			
H1	1	HGUS410					46 16d	1	6 16d	L4A 7X4			
H2	1	HUS1.81/1	0				30 16d	1	0 16d	905-642-4400			
Н3	1	HUCQ1.81	/9-							Job Path			
H4	6	LT2-159				4	10dx1 1/2	2 10	dx1 1/2	D:\Users\rochavillo\WORK FROM			
H5	14	LT259				_	10dx1 1/2	-	dx1 1/2	HOME\GREENPARK\MINNISALE			
								,		HOMESICLOVER 11AIFLOORIR			

#### NOTES:

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

  8. It shall be the framer's responsibility that floor joists and beams are
- fastened as per the hanger manufacturer's standards.

Refer to Multiple Member Connection Detail to ply to ply nailing or

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

Hatch area represents ceramic tiled floor with an 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:

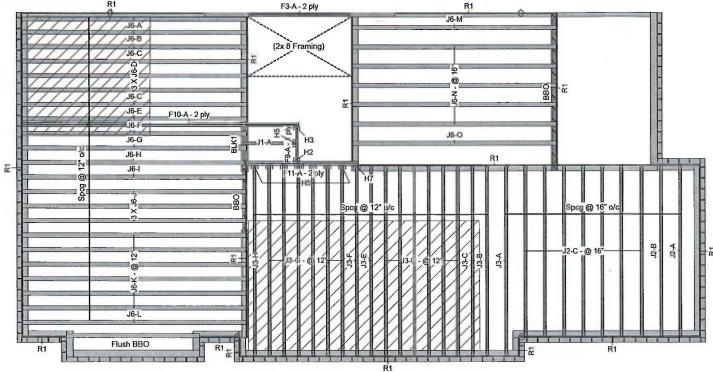
JARDIN DESIGN GROUP INC. 64 Jardin Dr., Suite 3A, Vaughan, ON Date: Rev.3; Aug.30,2018 Project No: 18-24 Model: Clover 11A

14 Anderson Blvd	i
Stouffville, Ontari	0
Canada	
L4A 7X4	
905-642-4400	
Job Path	
D:\Users\rochavi	IoWORK FROM
	ARK\MINNISALE
	LSI
•	
Building Code	2010
Floor	
Live	4
Dead	1:
	48
The state of the s	36
	48
	36
	er
LL Span L/	36
TL Span L/	24
LL Cant 2L/	48
TL Cant 2L/	36
Decking	
Deck	SPF Plywoo
Thickness	3/4
Fastener	Nailed & Glue
Vibration	
	L4A7X4 905-642-4400 Job Path D:\Users\rochavil HOME\GREENP. HOMES\CLOVET \CLOVER 11A.isl  Ground Floor Design Method Building Code  Floor Loads Live Dead Deflection Joist LL Span L/ TL Span L/ TL Cant 2L/ Deflection Girde LL Span L/ TL Span L/ TL Cant 2L/ Deflection Girde LL Span L/ TL Cant 2L/

Version 18.40.162 Powered by iStruct™

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





This certification is to confirm that:

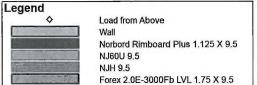
1. The loads used in the calculation of the attached approved components conform to the floor assembly shown on this layout.

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.





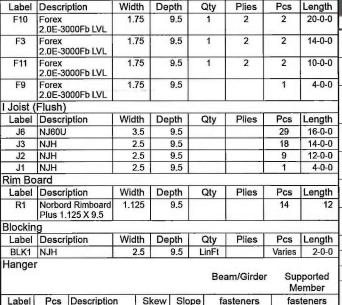
1. OBC 2012 O.Reg 332/12 as amended

2. Nascor CCMC - 13535-R

3. LVL CCMC -14056-R

4. CAN/CSA-086-09

5. CCMC -12787-R APA PR-L310(C)



30 16d

4 10dx1 1/2

H5 H7 NOTES:

H2

НЗ

Second Floor LVL/LSL (Flush)

Label Description

 Framer to verify dimensions on the architectural drawings.
 Double joist only require filler/backer ply when supporting another member using a face-mounted hanger.

. Install 2x4 blocking @ 24" o/c under parallel non-load bearing walls.

. Install single-ply flush window header along inside face of rimboard/rimjoist.

1 HUS1.81/10

SDS

8 LT259

1 LT259

1 HUCQ1.81/9-

i. 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.

Load transfer blocks to be installed under all point loads.

B. It shall be the framer's responsibility that floor joists and beams are fastened as per the hanger manufacturer's standards.

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

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

Hatch area represents ceramic tiled floor with an 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

#### ARCHITECTURAL DRAWINGS:

JARDIN DESIGN GROUP INC. 64 Jardin Dr., Suite 3A, Vaughan, ON Date: Rev.3; Aug.30,2018 Project No: 18-24 Model: Clover 11A

Plies Pcs Length Layout Name **CLOVER 11A-1** Design Method LSD Description MINNISALE HOMES BRAMPTON, ONT. Created July 03, 2018 Builder GREENPARK Sales Rep RM Designer **RCO** Shipping Project Builder's Project **Kott Lumber Company** fasteners 14 Anderson Blvd 10 16d Stouffville, Ontario Canada L4A 7X4 2 10dx1 1/2 905-642-4400 Job Path D:\Users\rochavillo\WORK FROM HOME\GREENPARK\MINNISALE HOMESICLOVER 11AIFLOORIREV \CLOVER 11A isl Second Floor LSD Design Method Building Code NBCC 2010 / OBC Floor Loads 40 Live Dead 15 **Deflection Joist** 480 LL Span L/

TL Span L/

LL Cant 2L/

TL Cant 2L/

LL Span L/

TL Span L/

LL Cant 2L/

TL Cant 2L/

Decking

Thickness

Fastener Vibration

Ceiling:

Deck

Deflection Girder

360

480

360

360

240

480

360

5/8"

SPF Plywood

Nailed & Glued

Gypsum 1/2"



# **MULTIPLE MEMBER CONNECTIONS**

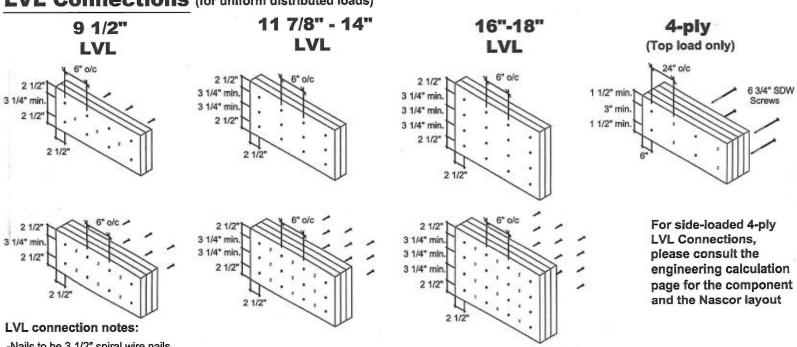
# Conventional Connections (for uniform distributed loads)

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

## Conventional connection notes:

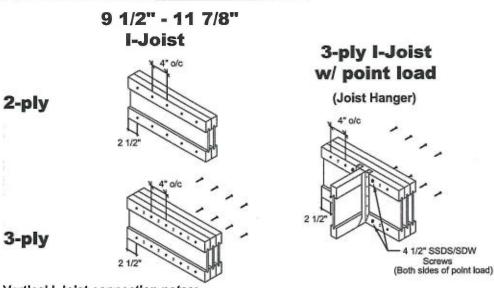
- -Nails to be 3" 10d spiral wire nails.
- -Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
- -Number of rows and spacing as per details shown, unless noted otherwise.
- "X" represents nail driven from the opposite side.

# LVL Connections (for uniform distributed loads)



- -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.

3228 Moodle Drive Ottawa, ON K2H 7V1

Date: November 30, 2016 Scale: NTS

**MULTI-PLY** 

CONNECTION

DETAILS

Ph: 613-838-2775 43-838-4751