

## **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.

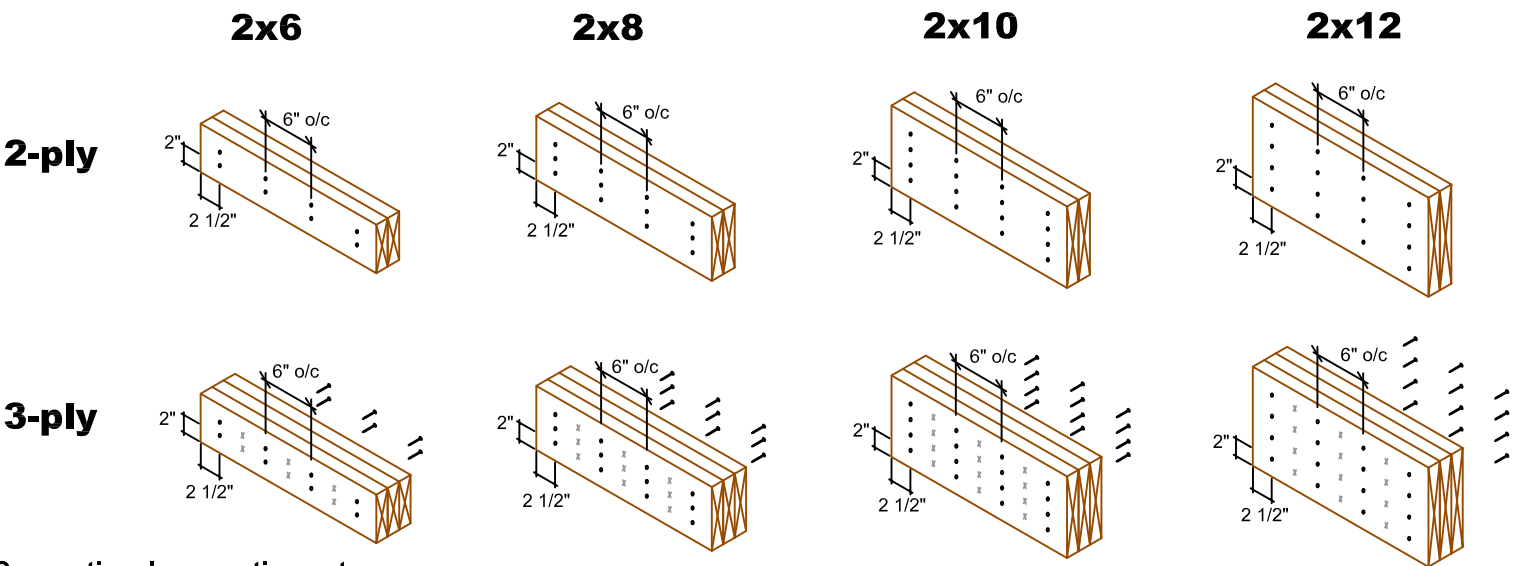
### **HANDLING AND INSTALLATION**

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

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION

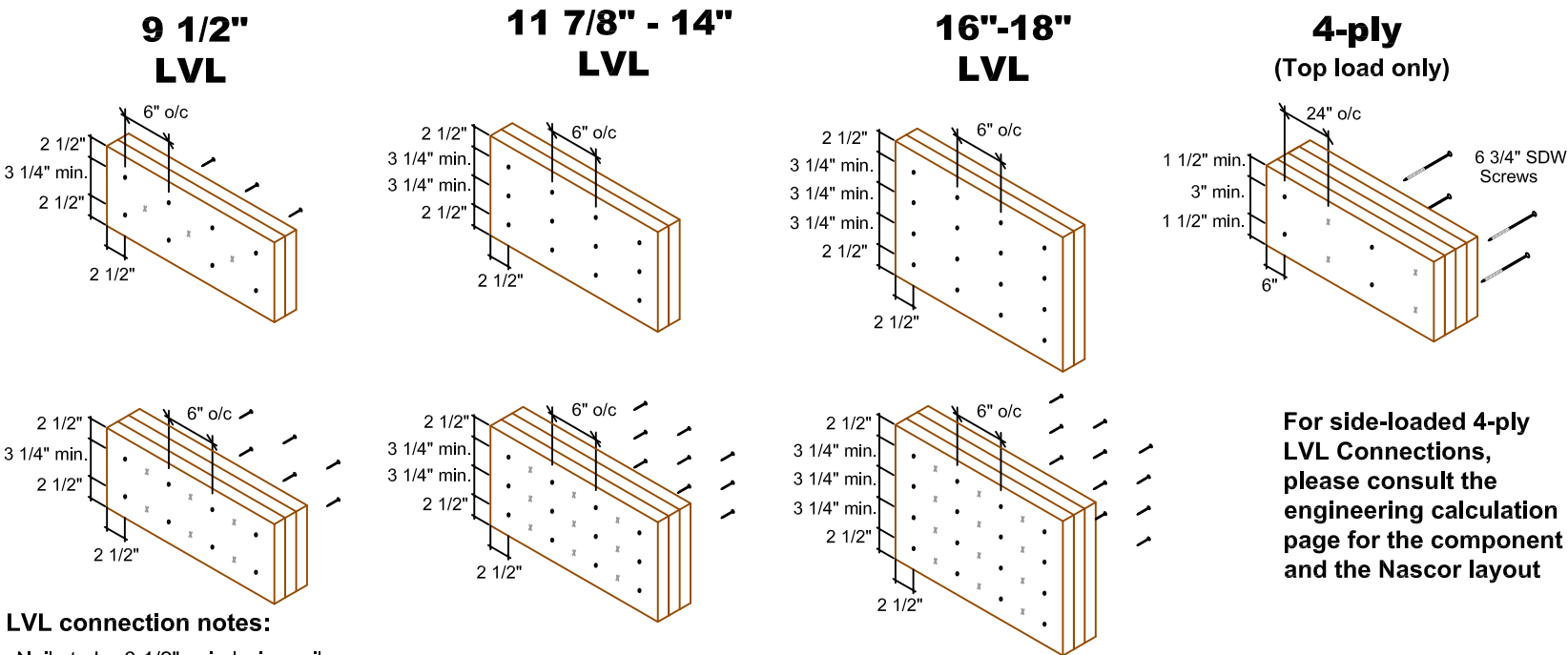
# MULTIPLE MEMBER CONNECTIONS

## Conventional Connections (for uniform distributed loads)



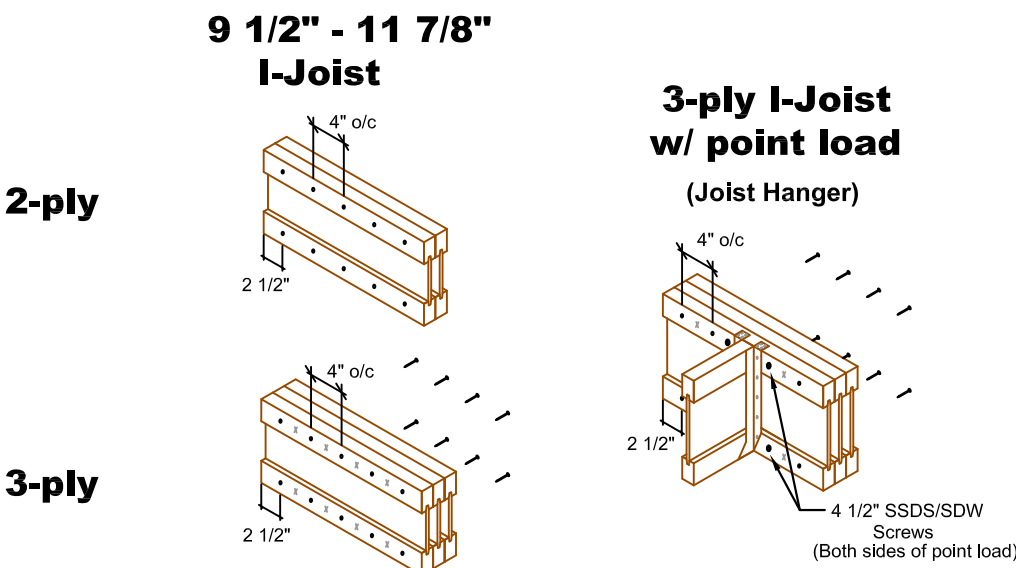
- Conventional connection notes:**
- Nails to be 3" 10d spiral wire nails.
  - Nails to be located a minimum of 2" from the top and bottom of the member. Start all nails a minimum of 2 1/2" in from ends.
  - Number of rows and spacing as per details shown, unless noted otherwise.
  - "X" represents nail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

## LVL Connections (for uniform distributed loads)



- 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.

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION



**MULTI -PLY  
CONNECTION  
DETAILS**

Date: November 30, 2016

Scale: NTS

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

----- Floor Framing Material -----			
Type	Qty.	Product	Length
J1	1	NJH12	14' 0"
J2	2	NJH12	12' 0"
J3	1	NJH12	6' 0"
J4	1	NJH12	4' 0"
J5	1	NJH12	2' 0"
J6	14	NJ40U12	20' 0"
J7	24	NJ40U12	18' 0"
G1	1	1 3/4x11 7/8 West Fraser 2.0E-	18' 0"
G2	1	1 3/4x11 7/8 West Fraser 2.0E-	18' 0"
G3	2	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G4	1	1 3/4x11 7/8 West Fraser 2.0E-	4' 0"
G5	2	NJ12	4' 0"
G6	2	NJ12	4' 0"
G7	1	NJ12	2' 0"
G8	1	NJ12	2' 0"
G9	1	1 3/4x11 7/8 West Fraser 2.0E-	20' 0"
G11	2	NJ12	20' 0"
G12	2	NJ12	20' 0"
G13	2	NJ12	20' 0"
G14	2	NJ12	20' 0"
G15	2	NJ12	18' 0"
R1	12	11 7/8" RIMBOARD	12' 0"

HATCH AREA INDICATED REPRESENTS  
CERAMIC TILED FLOOR WITH AN  
ADDITIONAL DEAD LOAD OF 5.00 PSF

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

SB : SQUASH BLOCK ON BOTH SIDES OF GIRDER  
( CUT 1/16" LONGER THAN JOISTS DEPTH)

All product names are trademarks of their respective owners

DESIGN ASSUMPTIONS

Loads:(un-factored)  
T/C Live: 40 psf B/C Live: 0 psf  
T/C Dead: 15 psf B/C Dead: 0 psf  
Load Case: Live  
Deflection Criteria:  
L/480 Live L/360 Total  
Building Code: OBC-2012 (Limit States Design)  
Building Type: Residential  
Importance Category: Normal (Part 9)  
Design assumes top edge continuously braced,  
and bottom edge unbraced.  
Joist Design Includes CCMC Vibration Check  
Subfloor: 3/4" OSB Glued and Nailed  
Ceiling: (None)  
Blocking: (As Shown)

All Loads are UN-FACTORED Loads

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.

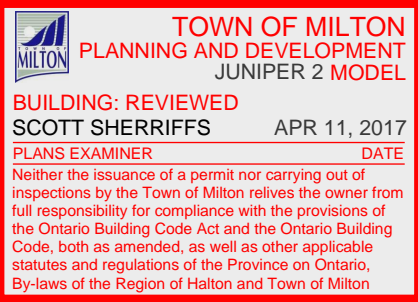
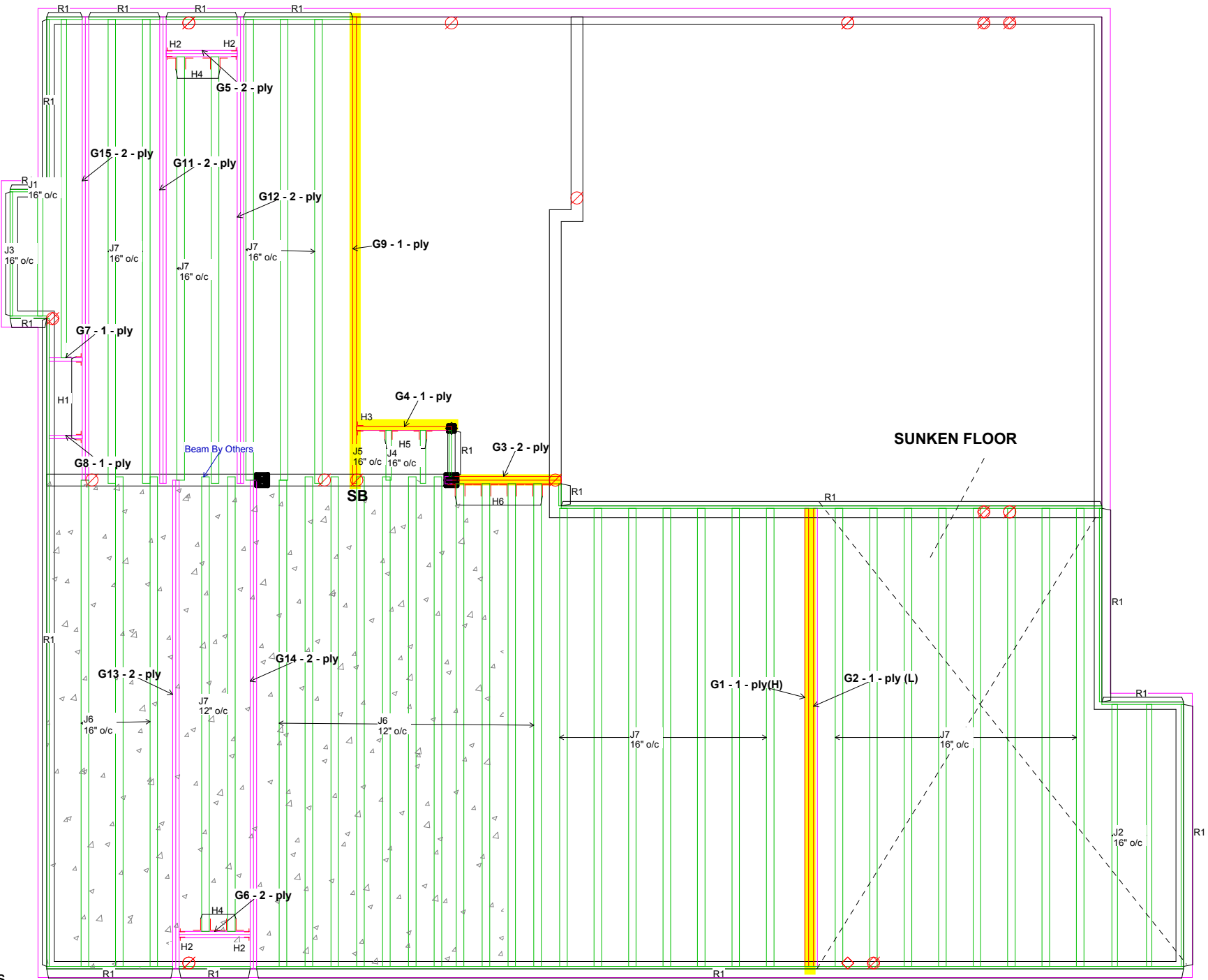
PASS-THRU FRAMING SQUASH BLOCK  
IS REQUIRED AT ALL POINT LOADS  
OVER BEARINGS.

---- Connector List ---

ID#	Qty	Model Number
H1	2	LT151188
H2	4	LT2-151188
H3	1	HUS1.81/10
H4	4	LT351188
H5	2	LT251188
H6	4	LT351188

NOTES:

1. Framers 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-loadbearing walls.
4. Install single-ply flush window header along inside face of rimboard/rimjoist.
5. Refer to Nascor specifier guide for installation details.
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.



FIRST FLOOR FRAMING

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION



Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca

Project Tag:

JUNIPER 2 EL - 1- 2-3

GREENPARK HOMES  
LECCO RIDGE

SALESMAN: RM

Time: 02:31 PM  
DATE: 10/26/16  
Designer: SB  
Not Scaled  
License Name:  
KEYMARK ENTERPRISES, INC.

**Member Data****Description:** CalcG1**Comments:**

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Dead Load: 0 PLF

Deck Connection: Nailed

Member Weight: 5.9 PLF

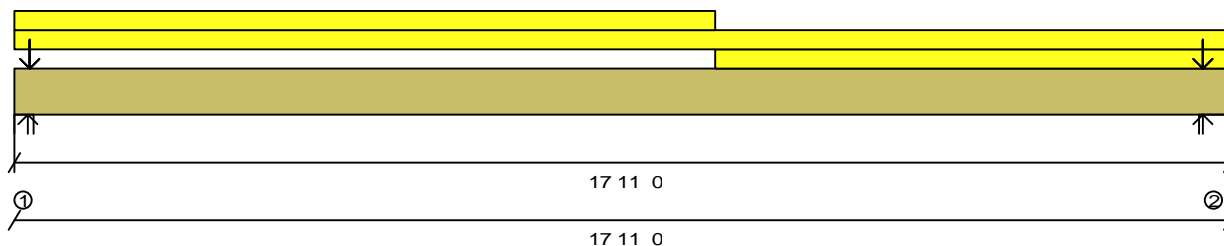
Filename: S:\CUSTOMERS

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads****Type****(Description)**

	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	10' 4.00"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	17' 11.00"		27		10		Live
Replacement Uniform (PLF)	Top	10' 4.00"	17' 11.00"		27		10		Live
Point (LBS)	Top	0' 2.75"			0		130		Live
Point (LBS)	Top	0' 2.75"			688		0		Snow
Point (LBS)	Top	0' 2.75"			861		687		Live
Point (LBS)	Top	17' 6.38"			43		16		Live
Point (LBS)	Top	17' 6.38"			0		65		Live
Point (LBS)	Top	17' 6.38"			566		228		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.994"	3629#	--
2	17' 11.000"	Wall	N/A	N/A	1.500"	2272#	--

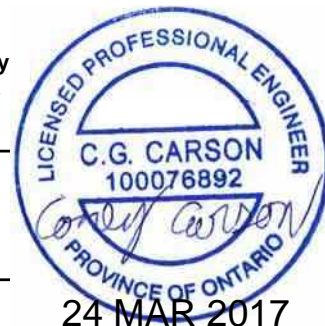
**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

	Live	Snow	Dead
1	1322#	688#	1041#
2	1070#	0#	533#

Design spans

17' 3.750"

**Product:** 1 3/4x11 7/8 West Fraser 2.0E-3100F 1 ply**PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.

Design assumes no lateral bracing along the bottom chord.

**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	4210.1#	17693.1#	23%	8.87'	Total Load 1.25D+1.5L
Shear	862.1#	6908.1#	12%	0.23'	Total Load 1.25D+1.5L
TL Deflection	0.3444"	0.5771"	L/603	8.87'	Total Load D+L
LL Deflection	0.2318"	0.4328"	L/896	8.87'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: TL Deflection

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

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

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

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION

All product names are trademarks of their respective owners

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet.  
The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.

SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca

**Member Data****Description:** CalcG2**Comments:**

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Dead Load: 0 PLF

Deck Connection: Nailed

Member Weight: 5.9 PLF

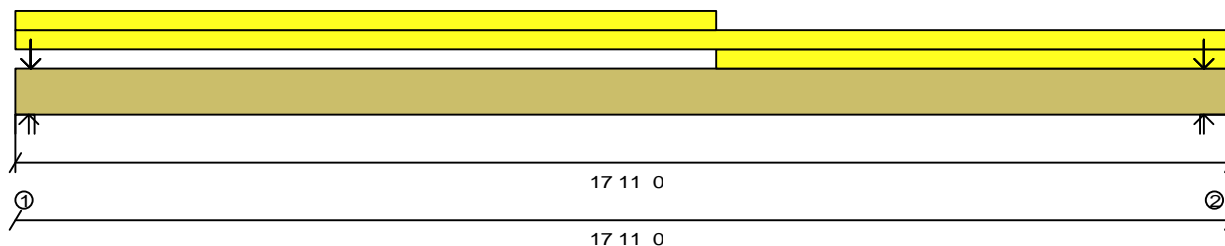
Filename: S:\CUSTOMERS

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads****Type****(Description)**

	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	10' 4.00"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	17' 11.00"		27		10		Live
Replacement Uniform (PLF)	Top	10' 4.00"	17' 11.00"		27		10		Live
Point (LBS)	Top	0' 2.75"			0		130		Live
Point (LBS)	Top	0' 2.75"			688		0		Snow
Point (LBS)	Top	0' 2.75"			861		687		Live
Point (LBS)	Top	17' 6.38"			43		16		Live
Point (LBS)	Top	17' 6.38"			0		65		Live
Point (LBS)	Top	17' 6.38"			566		228		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.994"	3629#	--
2	17' 11.000"	Wall	N/A	N/A	1.500"	2272#	--

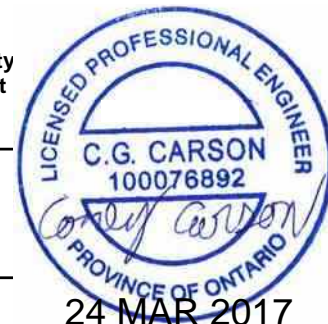
**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

	Live	Snow	Dead
1	1322#	688#	1041#
2	1070#	0#	533#

Design spans

17' 3.750"

**Product:** 1 3/4x11 7/8 West Fraser 2.0E-3100F 1 ply**PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.

Design assumes no lateral bracing along the bottom chord.

**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	4210.1#	17693.1#	23%	8.87'	Total Load 1.25D+1.5L
Shear	862.1#	6908.1#	12%	0.23'	Total Load 1.25D+1.5L
TL Deflection	0.3444"	0.5771"	L/603	8.87'	Total Load D+L
LL Deflection	0.2318"	0.4328"	L/896	8.87'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: TL Deflection

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

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

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

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION

All product names are trademarks of their respective owners

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet.  
The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.

SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca





**Member Data****Description: CalcG4**

Comments:

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Dead Load: 0 PLF

Deck Connection: Nailed

Member Weight: 5.9 PLF

Filename: S:\CUSTOMERS

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads****Type**

(Description)

Replacement Uniform (PLF)

Side

Top

Begin

0' 0.00"

End

4' 0.00"

Trib.  
WidthOther  
Start

80

End

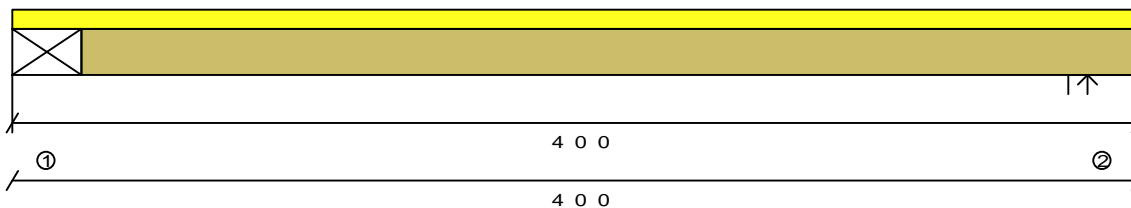
Dead  
Start

30

End

Category

Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Girder	N/A	N/A	N/A	295#	--
2	4' 0.000"	Wall	N/A	N/A	1.500"	295#	--

**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	143#	64#
2	143#	64#

Design spans

3' 6.875"

**Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 1 ply****PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.

Design assumes no lateral bracing along the bottom chord.

**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	263. #	17693. #	1%	2.04'	Total Load 1.25D+1.5L
Shear	131. #	6908. #	1%	0.26'	Total Load 1.25D+1.5L
TL Deflection	0.0019"	0.1191"	L/999+	2.04'	Total Load D+L
LL Deflection	0.0013"	0.0893"	L/999+	2.04'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: Shear

Minimum bearing length requirements at hanged connections depend on the connection style and are not included in this design.

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION



24 MAR 2017

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

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

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

All product names are trademarks of their respective owners

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet.  
The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.

SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca

## Member Data

**Description:** CalcG5

Comments:

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Dead Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Deck Connection: Nailed

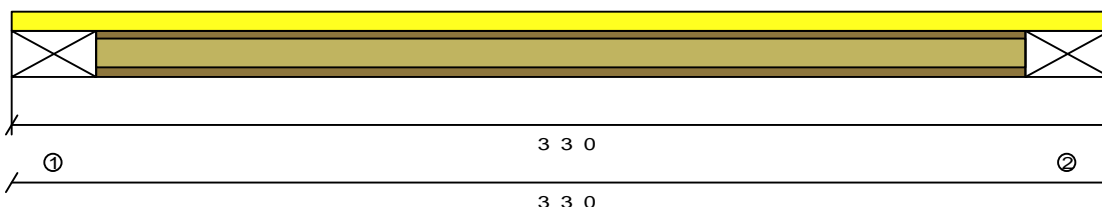
Filename: S:\CUSTOMERS

Building Type: Residential

Importance Category: Normal (Part 9)

## Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	3' 3.00"		330		124		Live



## Bearings and Factored Reactions

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Girder	N/A	N/A	N/A	893#	--
2	3' 3.000"	Girder	N/A	N/A	N/A	893#	--

## Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	454#	170#
2	454#	170#

Design spans  
2' 9.000"

**Product: NJ12 2 ply**

**PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.  
Design assumes no lateral bracing along the bottom chord.  
Lateral support is required at each bearing.

## Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	614. #	9020. #	6%	1.62'	Total Load 1.25D+1.5L
Shear	893. #	3400. #	26%	0'	Total Load 1.25D+1.5L
TL Deflection	0.0048"	0.0917"	L/999+	1.62'	Total Load D+L
LL Deflection	0.0035"	0.0688"	L/999+	1.62'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Control: Shear

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

Web stiffener and minimum bearing length requirements at hangared connections depend on the connection style and are not included in this design.

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION



24 MAR 2017

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

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

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

All product names are trademarks of their respective owners

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet.  
The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.

SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca



## Member Data

**Description:** CalcG6

**Comments:**

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Dead Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Deck Connection: Nailed

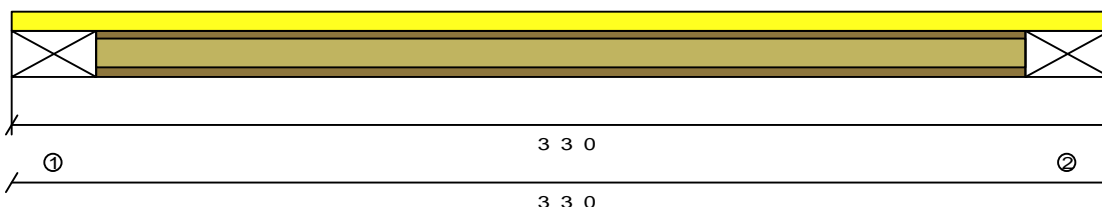
Filename: S:\CUSTOMERS

Building Type: Residential

Importance Category: Normal (Part 9)

## Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	3' 3.00"		352		176		Live



## Bearings and Factored Reactions

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Girder	N/A	N/A	N/A	1028#	--
2	3' 3.000"	Girder	N/A	N/A	N/A	1028#	--

## Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	484#	242#
2	484#	242#

Design spans  
2' 9.000"

**Product: NJ12 2 ply**

**PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.  
Design assumes no lateral bracing along the bottom chord.  
Lateral support is required at each bearing.

## Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	706.##	9020.##	7%	1.62'	Total Load 1.25D+1.5L
Shear	1028.##	3400.##	30%	0'	Total Load 1.25D+1.5L
TL Deflection	0.0056"	0.0917"	L/999+	1.62'	Total Load D+L
LL Deflection	0.0037"	0.0688"	L/999+	1.62'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Control: Shear

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

Web stiffener and minimum bearing length requirements at hangared connections depend on the connection style and are not included in this design.

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION



24 MAR 2017

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

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

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

All product names are trademarks of their respective owners

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet.  
The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.

SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca

**Member Data****Description: CalcG7**

Comments:

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Dead Load: 0 PLF

Deck Connection: Nailed

Filename: S:\CUSTOMERS

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads****Type**

(Description)

Replacement Uniform (PLF)

Side

Top

Begin

0' 0.00"

End

1' 7.50"

Trib.  
WidthOther  
Start

265

End

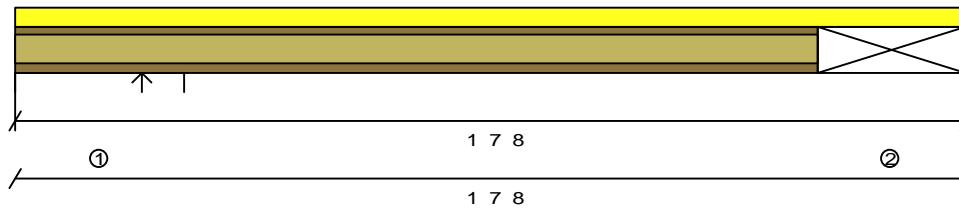
Dead  
Start

99

End

Category

Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.500"	302#	--
2	1' 7.500"	Girder	N/A	N/A	N/A	302#	--

**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	153#	57#
2	153#	57#

Design spans

1' 1.875"

**Product: NJ12 1 ply****PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.

Design assumes no lateral bracing along the bottom chord.

Lateral support is required at each bearing.

**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	87. #	4510. #	1%	0.8'	Total Load 1.25D+1.5L
End Reaction	302. #	2050. #	14%	0'	Total Load 1.25D+1.5L
TL Deflection	0.0011"	0.0385"	L/999+	0.8'	Total Load D+L
LL Deflection	0.0010"	0.0289"	L/999+	0.8'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Control: Shear

Shear cannot be calculated because member's length is less than 2d.

Web stiffener and minimum bearing length requirements at hangared connections depend on the connection style and are not included in this design.

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION



24 MAR 2017

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

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

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

All product names are trademarks of their respective owners

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet.  
The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.

SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca

**Member Data****Description: CalcG8**

Comments:

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Dead Load: 0 PLF

Deck Connection: Nailed

Filename: S:\CUSTOMERS

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads****Type**

(Description)

Replacement Uniform (PLF)

Side

Top

Begin

0' 0.00"

End

1' 7.50"

Trib.  
WidthOther  
Start

33

End

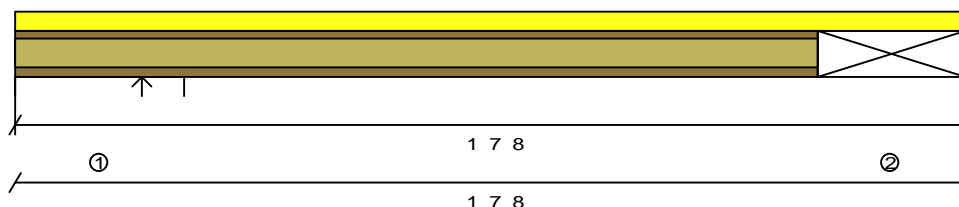
Dead  
Start

13

End

Category

Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.500"	38#	--
2	1' 7.500"	Girder	N/A	N/A	N/A	38#	--

**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	19#	7#
2	19#	7#

Design spans

1' 1.875"

**Product: NJ12 1 ply****PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.

Design assumes no lateral bracing along the bottom chord.

Lateral support is required at each bearing.

**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	11. #	4510. #	0%	0.8'	Total Load 1.25D+1.5L
End Reaction	38. #	2050. #	1%	0'	Total Load 1.25D+1.5L
TL Deflection	0.0010"	0.0385"	L/999+	0.8'	Total Load D+L
LL Deflection	0.0010"	0.0289"	L/999+	0.8'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Control: Shear

Shear cannot be calculated because member's length is less than 2d.

Web stiffener and minimum bearing length requirements at hangared connections depend on the connection style and are not included in this design.

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION



24 MAR 2017

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

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

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

All product names are trademarks of their respective owners

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet.  
The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.

SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca

**Member Data****Description:** CalcG9**Comments:**

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Dead Load: 0 PLF

Deck Connection: Nailed

Member Weight: 5.9 PLF

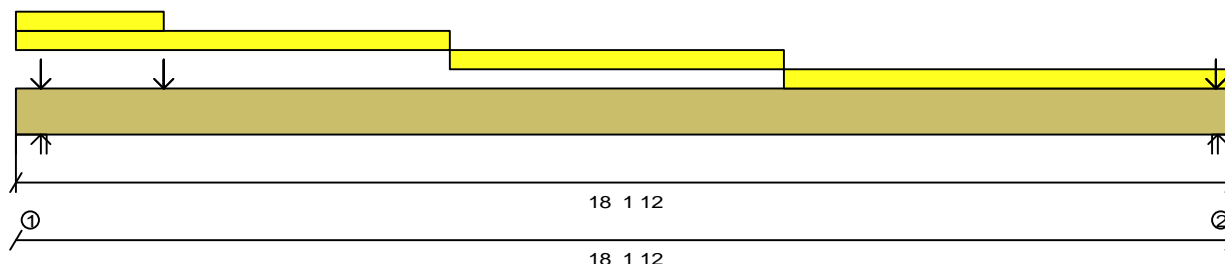
Filename: S:\CUSTOMERS

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads****Type****(Description)**

	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	2' 2.75"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	6' 5.75"		27		10		Live
Replacement Uniform (PLF)	Top	6' 5.75"	11' 5.75"		27		10		Live
Replacement Uniform (PLF)	Top	11' 5.75"	18' 1.75"		27		10		Live
Point (LBS)	Top	0' 4.63"			651		280		Live
Point (LBS)	Top	0' 4.63"			2634		1114		Live
Point (LBS)	Top	2' 2.75"			32		12		Live
Point (LBS)	Top	2' 2.75"			150		83		Live
Point (LBS)	Top	17' 11.00"			0		65		Live
Point (LBS)	Top	17' 11.00"			344		0		Snow
Point (LBS)	Top	17' 11.00"			434		320		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	4.196"	7636#	--
2	18' 1.750"	Wall	N/A	N/A	1.500"	1875#	--

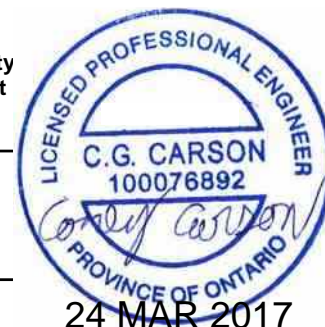
**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

	Live	Snow	Dead
1	3728#	0#	1635#
2	690#	344#	535#

Design spans

17' 6.500"

**Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 1 ply****PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.

Design assumes no lateral bracing along the bottom chord.

**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	2726.7#	17693.7#	15%	8.28'	Total Load 1.25D+1.5L
Shear	856.7#	6908.7#	12%	0.4'	Total Load 1.25D+1.5L
TL Deflection	0.2350"	0.5847"	L/895	9.16'	Total Load D+L
LL Deflection	0.1488"	0.4385"	L/999+	9.16'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: TL Deflection

**Pass-Thru Framing Squash Block is  
required at all point loads over bearings****Refer to Multiple Member Connection  
Detail for ply to ply nailing or bolting  
requirements****READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.****RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION**

All product names are trademarks of their respective owners

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet.  
The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca

**Member Data****Description:** CalcG11**Comments:**

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Deck Connection: Nailed

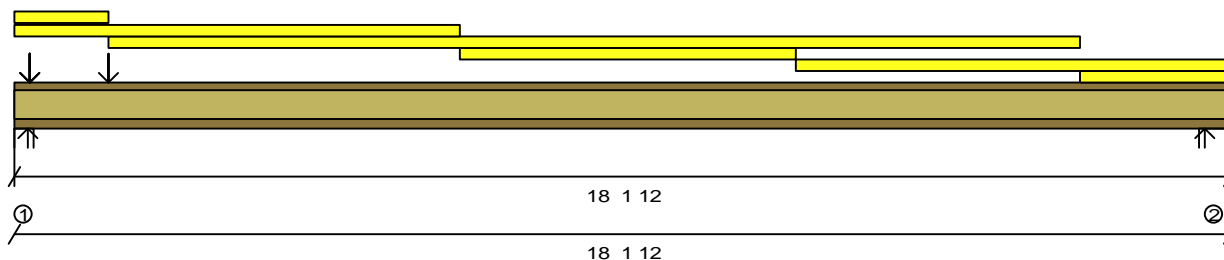
Filename: S:\CUSTOMERS

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads**

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	1' 5.00"		9		3		Live
Replacement Uniform (PLF)	Top	0' 0.00"	6' 8.00"		27		10		Live
Replacement Uniform (PLF)	Top	1' 5.00"	15' 11.00"		27		10		Live
Replacement Uniform (PLF)	Top	6' 8.00"	11' 8.00"		27		10		Live
Replacement Uniform (PLF)	Top	11' 8.00"	18' 1.75"		27		10		Live
Replacement Uniform (PLF)	Top	15' 11.00"	18' 1.75"		27		10		Live
Point (LBS)	Top	0' 2.75"			33		0		Snow
Point (LBS)	Top	0' 2.75"			0		65		Live
Point (LBS)	Top	0' 2.75"			287		182		Live
Point (LBS)	Top	1' 5.00"			495		207		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.500"	2568#	--
2	18' 1.750"	Wall	N/A	N/A	1.500"	988#	--

**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

	Live	Snow	Dead
1	1195#	33#	607#
2	501#	0#	189#

Design spans

17' 6.500"

**Product: NJ12 2 ply**

**NOTE:** Web stiffeners are required at point loads > 0#.  
Design assumes continuous lateral bracing along the top chord.  
Design assumes no lateral bracing along the bottom chord.  
Lateral support is required at each bearing.

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION

**PASSES DESIGN CHECKS**

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.

**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	4644. #	9020. #	51%	8.11'	Total Load 1.25D+1.5L
Shear	1813. #	3400. #	53%	0'	Total Load 1.25D+1.5L
End Reaction	2568. #	4100. #	62%	0'	Total Load 1.25D+1.5L+1.00*0.5S
TL Deflection	0.3950"	0.5847"	L/532	8.99'	Total Load D+L
LL Deflection	0.2860"	0.4385"	L/736	8.99'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Control: TL Deflection

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

Manufacturer's installation guide MUST be consulted to determine if web stiffeners are required at point loads

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

All product names are trademarks of their respective owners

SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet.  
The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.



**Member Data****Description: CalcG12**

Comments:

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Deck Connection: Nailed

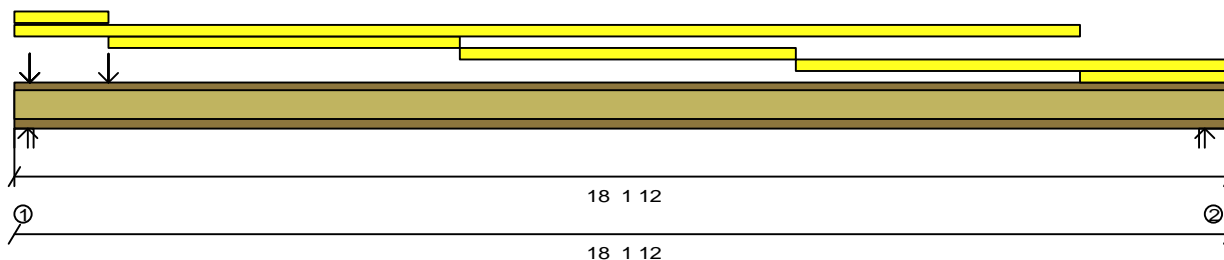
Filename: S:\CUSTOMERS

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads**

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	1' 5.00"		9		3		Live
Replacement Uniform (PLF)	Top	0' 0.00"	15' 11.00"		27		10		Live
Replacement Uniform (PLF)	Top	1' 5.00"	6' 8.00"		27		10		Live
Replacement Uniform (PLF)	Top	6' 8.00"	11' 8.00"		27		10		Live
Replacement Uniform (PLF)	Top	11' 8.00"	18' 1.75"		27		10		Live
Replacement Uniform (PLF)	Top	15' 11.00"	18' 1.75"		27		10		Live
Point (LBS)	Top	0' 2.75"			0		65		Live
Point (LBS)	Top	0' 2.75"			344		0		Snow
Point (LBS)	Top	0' 2.75"			434		320		Live
Point (LBS)	Top	1' 5.00"			495		207		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.500"	3116#	--
2	18' 1.750"	Wall	N/A	N/A	1.500"	988#	--

**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

	Live	Snow	Dead
1	1342#	344#	745#
2	501#	0#	189#

Design spans

17' 6.500"

**Product: NJ12 2 ply**

**NOTE: Web stiffeners are required at point loads > 0#.**  
**Design assumes continuous lateral bracing along the top chord.**  
**Design assumes no lateral bracing along the bottom chord.**  
**Lateral support is required at each bearing.**

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION

**PASSES DESIGN CHECKS**

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.

**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	4644. #	9020. #	51%	8.11'	Total Load 1.25D+1.5L
Shear	1813. #	3400. #	53%	0'	Total Load 1.25D+1.5L
End Reaction	3116. #	4100. #	76%	0'	Total Load 1.25D+1.5L+1.00*0.5S
TL Deflection	0.3950"	0.5847"	L/532	8.99'	Total Load D+L
LL Deflection	0.2860"	0.4385"	L/736	8.99'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Control: Max End React.

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

Manufacturer's installation guide MUST be consulted to determine if web stiffeners are required at point loads

**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**

All product names are trademarks of their respective owners

SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet.  
The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.

**Member Data****Description: CalcG13**

Comments:

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Deck Connection: Nailed

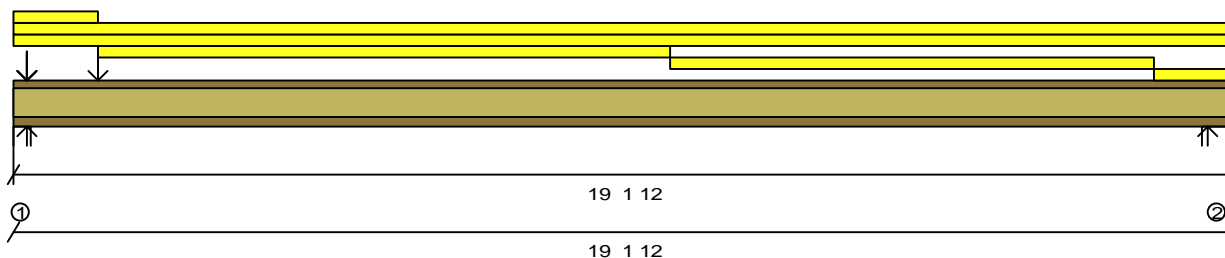
Filename: S:\CUSTOMERS

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads**

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	1' 4.00"		9		3		Live
Additional Uniform (PLF)	Top	0' 0.00"	19' 1.75"		0		7		Live
Replacement Uniform (PLF)	Top	0' 0.00"	19' 1.75"		27		10		Live
Replacement Uniform (PLF)	Top	1' 4.00"	10' 4.00"		27		10		Live
Replacement Uniform (PLF)	Top	10' 4.00"	17' 11.00"		27		10		Live
Replacement Uniform (PLF)	Top	17' 11.00"	19' 1.75"		27		10		Live
Point (LBS)	Top	0' 2.75"			33		0		Snow
Point (LBS)	Top	0' 2.75"			0		65		Live
Point (LBS)	Top	0' 2.75"			303		222		Live
Point (LBS)	Top	1' 4.00"			527		285		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.500"	2919#	--
2	19' 1.750"	Wall	N/A	N/A	1.500"	1118#	--

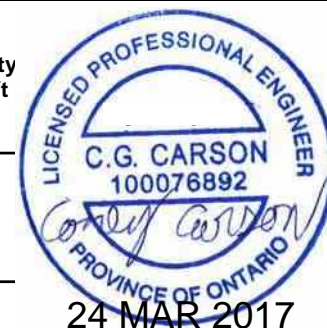
**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

	Live	Snow	Dead
1	1274#	33#	794#
2	526#	0#	264#

Design spans

18' 6.500"

**Product: NJ12 2 ply**

**NOTE: Web stiffeners are required at point loads > 0#.**  
**Design assumes continuous lateral bracing along the top chord.**  
**Design assumes no lateral bracing along the bottom chord.**  
**Lateral support is required at each bearing.**

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION

**PASSES DESIGN CHECKS**

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.

**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	5513. #	9020. #	61%	8.56'	Total Load 1.25D+1.5L
Shear	2091. #	3400. #	61%	0'	Total Load 1.25D+1.5L
End Reaction	2919. #	4100. #	71%	0'	Total Load 1.25D+1.5L+1.00*0.5S
TL Deflection	0.5251"	0.6181"	L/423	9.49'	Total Load D+L
LL Deflection	0.3487"	0.4635"	L/638	9.49'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Control: TL Deflection

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

Manufacturer's installation guide MUST be consulted to determine if web stiffeners are required at point loads

**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**

All product names are trademarks of their respective owners

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet.  
The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.

SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca

**Member Data****Description: CalcG14**

Comments:

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Deck Connection: Nailed

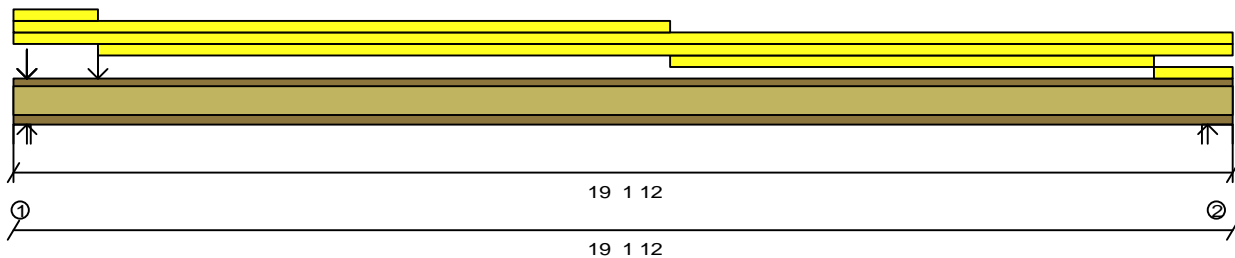
Filename: S:\CUSTOMERS

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads**

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	1' 4.00"		9		3		Live
Replacement Uniform (PLF)	Top	0' 0.00"	10' 4.00"		27		10		Live
Additional Uniform (PLF)	Top	0' 0.00"	19' 1.75"		0		7		Live
Replacement Uniform (PLF)	Top	1' 4.00"	19' 1.75"		27		10		Live
Replacement Uniform (PLF)	Top	10' 4.00"	17' 11.00"		27		10		Live
Replacement Uniform (PLF)	Top	17' 11.00"	19' 1.75"		27		10		Live
Point (LBS)	Top	0' 2.75"			0		65		Live
Point (LBS)	Top	0' 2.75"			344		0		Snow
Point (LBS)	Top	0' 2.75"			450		359		Live
Point (LBS)	Top	1' 4.00"			527		285		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.500"	3468#	--
2	19' 1.750"	Wall	N/A	N/A	1.500"	1118#	--

**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

	Live	Snow	Dead
1	1421#	344#	931#
2	526#	0#	264#

Design spans

18' 6.500"

**Product: NJ12 2 ply**

**NOTE: Web stiffeners are required at point loads > 0#.**  
**Design assumes continuous lateral bracing along the top chord.**  
**Design assumes no lateral bracing along the bottom chord.**  
**Lateral support is required at each bearing.**

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION

**PASSES DESIGN CHECKS**

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.

**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	5513. #	9020. #	61%	8.56'	Total Load 1.25D+1.5L
Shear	2091. #	3400. #	61%	0'	Total Load 1.25D+1.5L
End Reaction	3468. #	4100. #	84%	0'	Total Load 1.25D+1.5L+1.00*0.5S
TL Deflection	0.5251"	0.6181"	L/423	9.49'	Total Load D+L
LL Deflection	0.3487"	0.4635"	L/638	9.49'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Control: TL Deflection

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

Manufacturer's installation guide MUST be consulted to determine if web stiffeners are required at point loads

**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**

All product names are trademarks of their respective owners

SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet.  
The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.

**Member Data****Description:** CalcG15

Comments:

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Dead Load: 0 PLF

Deck Connection: Nailed

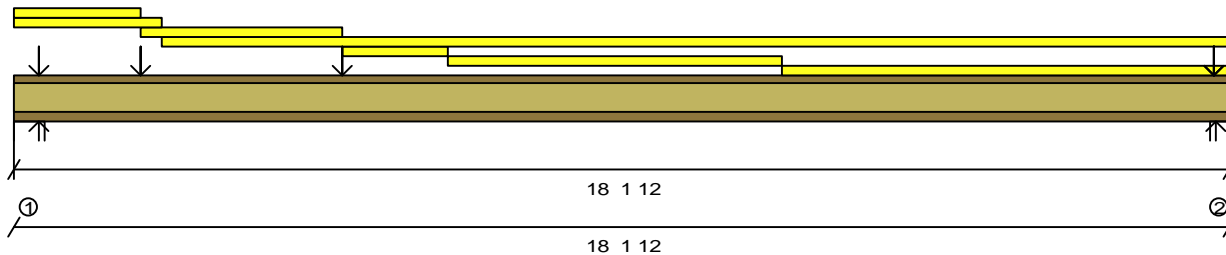
Filename: S:\CUSTOMERS

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads**

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	1' 10.75"		27		10		Live
Replacement Uniform (PLF)	Top	0' 0.00"	2' 2.75"		27		10		Live
Replacement Uniform (PLF)	Top	1' 10.75"	4' 10.75"		9		3		Live
Replacement Uniform (PLF)	Top	2' 2.75"	18' 1.75"		27		10		Live
Replacement Uniform (PLF)	Top	4' 10.75"	6' 5.75"		27		10		Live
Replacement Uniform (PLF)	Top	6' 5.75"	11' 5.75"		27		10		Live
Replacement Uniform (PLF)	Top	11' 5.75"	18' 1.75"		27		10		Live
Point (LBS)	Top	0' 4.63"			773		354		Live
Point (LBS)	Top	1' 10.75"			25		20		Live
Point (LBS)	Top	4' 10.75"			199		85		Live
Point (LBS)	Top	17' 11.00"			66		0		Snow
Point (LBS)	Top	17' 11.00"			0		130		Live
Point (LBS)	Top	17' 11.00"			573		364		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.500"	2794#	--
2	18' 1.750"	Wall	N/A	N/A	1.500"	2522#	--

**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

	Live	Snow	Dead
1	1368#	0#	594#
2	1085#	66#	689#

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.

Design spans  
17' 6.500"

24 MAR 2017

**Product: NJ12 2 ply**

NOTE: Web stiffeners are required at point loads > 0#.  
Design assumes continuous lateral bracing along the top chord.  
Design assumes no lateral bracing along the bottom chord.  
Lateral support is required at each bearing.

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION

**PASSES DESIGN CHECKS**

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

**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	4879. #	9020. #	54%	8.28'	Total Load 1.25D+1.5L
Shear	1191. #	3400. #	35%	0'	Total Load 1.25D+1.5L
End Reaction	2794. #	4100. #	68%	0'	Total Load 1.25D+1.5L
TL Deflection	0.4098"	0.5847"	L/513	9.16'	Total Load D+L
LL Deflection	0.2950"	0.4385"	L/713	9.16'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Control: TL Deflection

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

Manufacturer's installation guide MUST be consulted to determine if web stiffeners are required at point loads

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

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

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

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION



All product names are trademarks of their respective owners

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet.  
The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.

SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca



----- Floor Framing Material -----			
Type	Qty.	Product	Length
J1	12	NJH12	18' 0"
J2	6	NJH12	16' 0"
J3	2	NJH12	12' 0"
J4	4	NJH12	8' 0"
J5	19	NJ60U12	20' 0"
J6	11	NJ60U12	18' 0"
J7	21	NJ60H12	18' 0"
G3	1	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G4	2	1 3/4x11 7/8 West Fraser 2.0E-	18' 0"
G5	2	1 3/4x11 7/8 West Fraser 2.0E-	10' 0"
R1	15	11 7/8" RIMBOARD	12' 0"
R2	2	11 7/8" RIMBOARD	12' 0"

----- Beam & Ledger Material -----			
Type	Qty.	Product	Length
B2	3	1 3/4x9 1/2 West Fraser 2.0E-3	10' 0"

----- Miscellaneous Materials -----			
Type	Qty.	Product	Length
XXX	1	NJH12	12' 0"

All product names are trademarks of their respective owners

DESIGN ASSUMPTIONS  
=====

Loads:(un-factored)  
T/C Live: 40 psf B/C Live: 0 psf  
T/C Dead: 15 psf B/C Dead: 0 psf  
Load Case: Live  
Deflection Criteria:  
L/480 Live L/360 Total  
Building Code: OBC-2012 (Limit States Design  
Building Type: Residential  
Importance Category: Normal (Part 9)  
Design assumes top edge continuously braced,  
and bottom edge unbraced.  
Joist Design Includes CCMC Vibration Check  
Subfloor: 5/8" OSB Glued and Nailed  
Ceiling: 1/2" gypsum  
Blocking: (None)

All Loads are UN-FACTORED Loads

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 AREA INDICATED REPRESENTS  
CERAMIC TILED FLOOR WITH AN  
ADDITIONAL DEAD LOAD OF 5.00 PSF

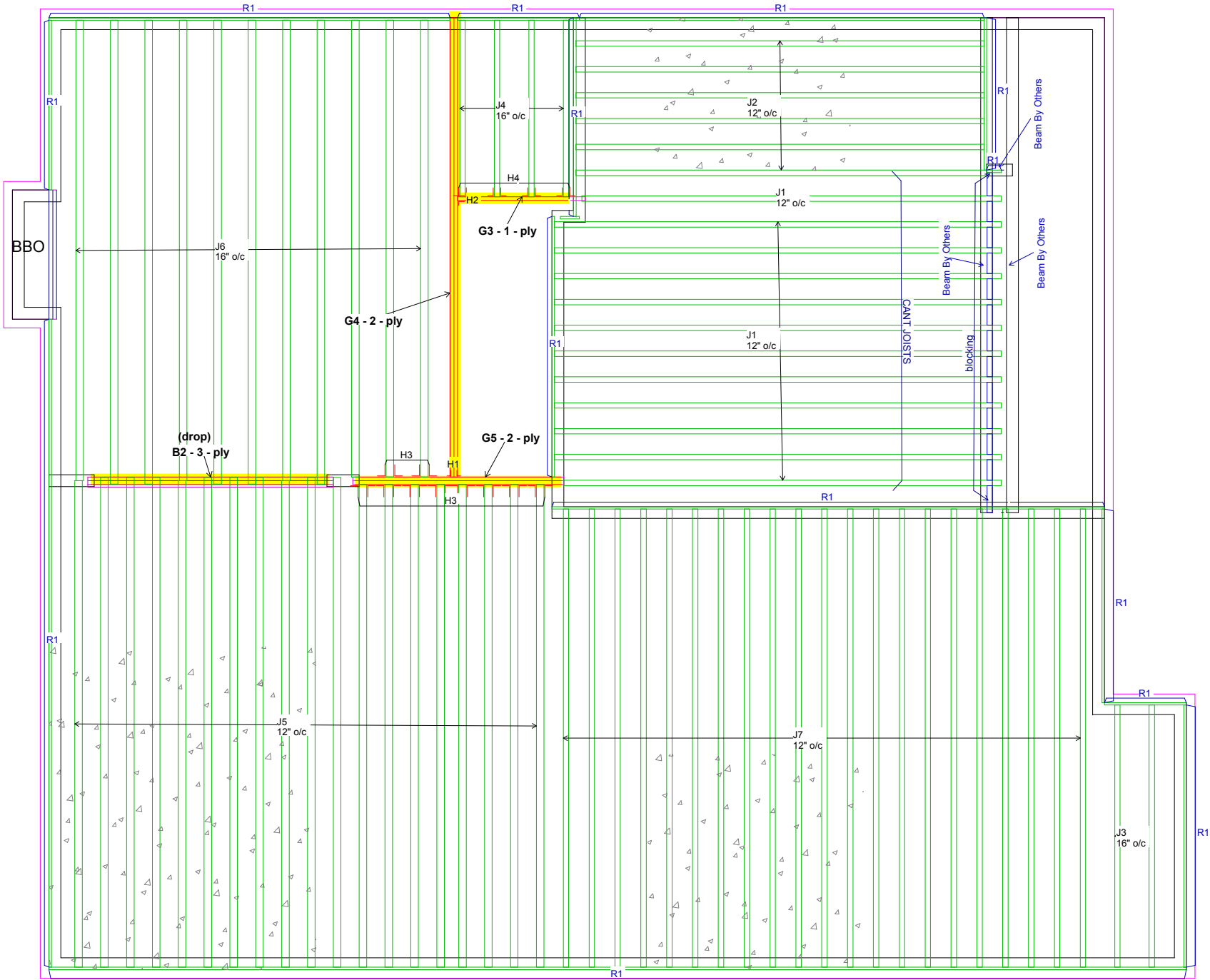
Refer to Multiple Member Connection  
Detail to ply to ply nailing or bolting  
requirements.

PASS-THRU FRAMING SQUASH BLOCK  
IS REQUIRED AT ALL POINT LOADS  
OVER BEARINGS.

----- Connector List -----

ID#	Qty	Model Number
H1	1	HGUS410
H2	1	HUS1.81/10
H3	10	LT351188
H4	4	LT251188

- NOTES:
1. Framers 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-loadbearing walls.
  4. Install single-ply flush window header along inside face of rimboard/rimjoist.
  5. Refer to Nascor specifier guide for installation details.
  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.



SECOND FLOOR FRAMING

TOWN OF MILTON  
PLANNING AND DEVELOPMENT  
JUNIPER 2 MODEL

BUILDING: REVIEWED  
SCOTT SHERRIFFS  
PLANS EXAMINER

APR 11, 2017  
DATE

Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relieves the owner from full responsibility for compliance with the provisions of the Ontario Building Code Act and the Ontario Building Code, both as amended, as well as other applicable statutes and regulations of the Province of Ontario, By-laws of the Region of Halton and Town of Milton

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION



Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca

Project Tag:

JUNIPER 2 EL - 1 -2

GREENPARK HOMES  
LECCO RIDGE  
MILTON, ON

SALESMAN: RM

Time: 01:01 PM  
DATE: 10/12/16  
Designer: SB  
Not Scaled  
License Name:  
KEYMARK ENTERPRISES, INC.

----- Floor Framing Material -----

Type	Qty.	Product	Length
J1	14	NJH12	18' 0"
J2	4	NJH12	16' 0"
J3	2	NJH12	12' 0"
J4	4	NJH12	8' 0"
J5	19	NJ60U12	20' 0"
J6	11	NJ60U12	18' 0"
J7	21	NJ60H12	18' 0"
G3	2	1 3/4x11 7/8 West Fraser 2.0E-	6' 0"
G4	2	1 3/4x11 7/8 West Fraser 2.0E-	18' 0"
G5	2	1 3/4x11 7/8 West Fraser 2.0E-	10' 0"
R1	16	11 7/8" RIMBOARD	12' 0"

----- Beam & Ledger Material -----

Type	Qty.	Product	Length
B2	3	1 3/4x9 1/2 West Fraser 2.0E-3	10' 0"

----- Miscellaneous Materials -----

Type	Qty.	Product	Length
XXX	1	NJH12	8' 0"

All product names are trademarks of their respective owners

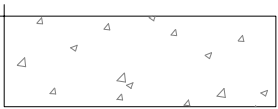
DESIGN ASSUMPTIONS  
=====

Loads:(un-factored)  
T/C Live: 40 psf B/C Live: 0 psf  
T/C Dead: 15 psf B/C Dead: 0 psf  
Load Case: Live  
Deflection Criteria:  
L/480 Live L/360 Total  
Building Code: OBC-2012 (Limit States Design  
Building Type: Residential  
Importance Category: Normal (Part 9)  
Design assumes top edge continuously braced,  
and bottom edge unbraced.  
Joist Design Includes CCMC Vibration Check  
Subfloor: 5/8" OSB Glued and Nailed  
Ceiling: 1/2" gypsum  
Blocking: (As Shown)

All Loads are UN-FACTORED Loads

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.

**PASS-THRU FRAMING SQUASH BLOCK  
IS REQUIRED AT ALL POINT LOADS  
OVER BEARINGS.**



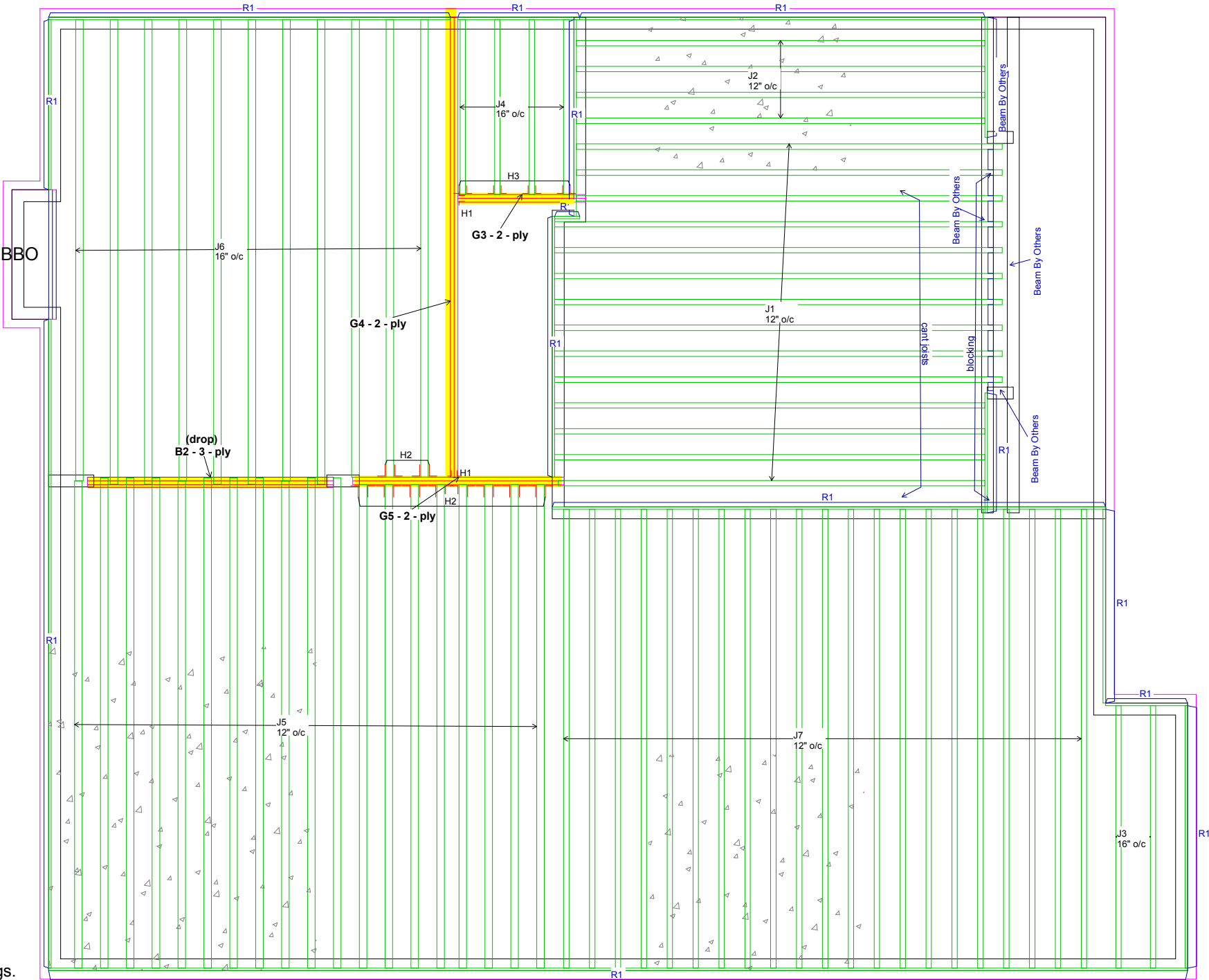
HATCH AREA INDICATED REPRESENTS  
CERAMIC TILED FLOOR WITH AN  
ADDITIONAL DEAD LOAD OF 5.00 PSF

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

----- Connector List ----

ID#	Qty	Model Number
H1	2	HGUS410
H2	10	LT351188
H3	4	LT251188

- NOTES:
1. Framers 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-loadbearing walls.
  4. Install single-ply flush window header along inside face of rimboard/rimjoist.
  5. Refer to Nascor specifier guide for installation details.
  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.





TOWN OF MILTON

PLANNING AND DEVELOPMENT

JUNIPER 2 MODEL

BUILDING: REVIEWED

SCOTT SHERRIFFS

APR 11, 2017

PLANS EXAMINER

DATE

Neither the issuance of a permit nor carrying out of inspections by the Town of Milton relieves the owner from full responsibility for compliance with the provisions of the Ontario Building Code Act and the Ontario Building Code, both as amended, as well as other applicable statutes and regulations of the Province of Ontario, By-laws of the Region of Halton and Town of Milton

**SECOND FLOOR FRAMING**

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION



Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca

File: D:\SAUMIL\GREENPARK HOMES\JUNIPER 2\F-EL 3\fr el- 3.L10

Project Tag:

**JUNIPER 2 EL - 3**

**GREENPARK HOMES  
LECCO RIDGE  
MILTON, ON**

**SALESMAN: RM**

Time: 01:50 PM  
DATE: 10/26/16  
Designer: SB  
Not Scaled  
License Name:  
KEYMARK ENTERPRISES, INC.

## Member Data

### Description: CalcG3

Comments:

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Dead Load: 0 PLF

Deck Connection: Nailed

Member Weight: 5.9 PLF

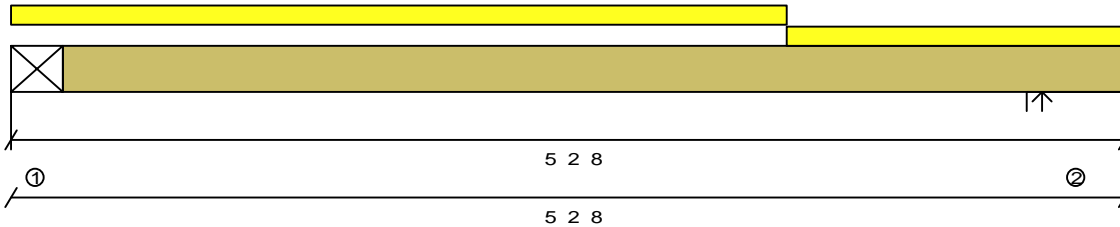
Filename: S:\CUSTOMERS

Building Type: Residential

Importance Category: Normal (Part 9)

## Other Loads

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	3' 7.50"		380		142		Live
Replacement Uniform (PLF)	Top	3' 7.50"	5' 2.50"		140		52		Live



## Bearings and Factored Reactions

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Girder	N/A	N/A	N/A	1653#	--
2	5' 2.500"	Wall	N/A	N/A	1.500"	1236#	--

## Maximum Unfactored Load Case Reactions

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	831#	325#
2	619#	246#

Design spans

4' 6.875"

**Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 1 ply**

**PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.  
Design assumes no lateral bracing along the bottom chord.

## Limit States Design

	Actual	Limit	Capacity	Location	Loading
Positive Moment	1805. #	17693. #	10%	2.54'	Total Load 1.25D+1.5L
Shear	955. #	6908. #	13%	3.91'	Total Load 1.25D+1.5L
TL Deflection	0.0165"	0.1524"	L/999+	2.54'	Total Load D+L
LL Deflection	0.0119"	0.1143"	L/999+	2.54'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: Shear

Minimum bearing length requirements at hungared connections depend on the connection style and are not included in this design.

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION



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

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

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

24 MAR 2017

All product names are trademarks of their respective owners

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet.  
The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.

SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca

**Member Data****Description:** CalcG4**Comments:**

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Standard Load:

Live Load: 0 PLF

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Dead Load: 0 PLF

Deck Connection: Nailed

Member Weight: 11.8 PLF

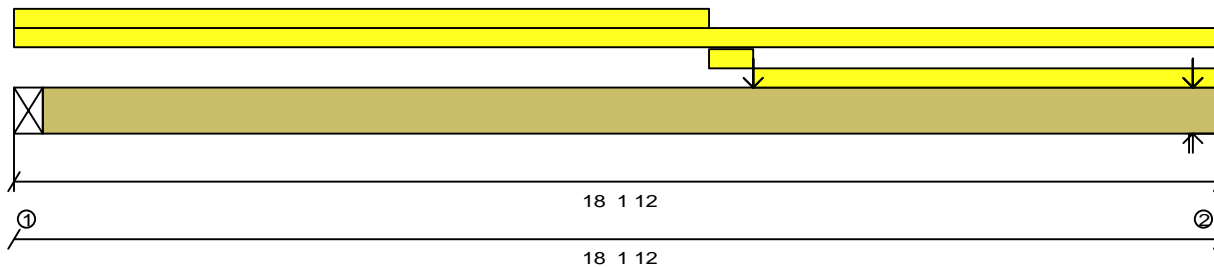
Filename: S:\CUSTOMERS

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads****Type****(Description)**

	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	10' 5.50"		9		3		Live
Replacement Uniform (PLF)	Top	0' 0.00"	18' 1.75"		27		10		Live
Replacement Uniform (PLF)	Top	10' 5.50"	11' 1.75"		9		3		Live
Replacement Uniform (PLF)	Top	11' 1.75"	18' 1.75"		27		10		Live
Point (LBS)	Top	11' 1.75"			192		72		Live
Point (LBS)	Top	11' 1.75"			877		363		Live
Point (LBS)	Top	17' 9.13"			0		130		Live
Point (LBS)	Top	17' 9.13"			295		295		Live
Point (LBS)	Top	17' 9.13"			688		0		Snow

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Girder	N/A	N/A	N/A	1598#	--
2	18' 1.750"	Wall	N/A	N/A	1.500"	3563#	--

**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

	Live	Snow	Dead
1	739#	0#	392#
2	1358#	688#	946#

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.



Design spans

17' 3.625"

**Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 2 ply****PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.

Design assumes no lateral bracing along the bottom chord.

The aspect ratio for the determination of the lateral stability factor is based on the total width of the beam in accordance with  
Section 6.5.6.3.1 and 6.5.6.3.3 of CSA O86-09.**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	12241. #	35386. #	34%	11.15'	Total Load 1.25D+1.5L
Shear	2128. #	13815. #	15%	16.9'	Total Load 1.25D+1.5L
TL Deflection	0.4267"	0.5767"	L/486	9.11'	Total Load D+L
LL Deflection	0.2873"	0.4326"	L/722	9.97'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: TL Deflection

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

Minimum bearing length requirements at hangared connections depend on the connection style and are not included in this design.

**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**

All product names are trademarks of their respective owners

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Cond  
The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation accor

RECEIVED  
TOWN OF MILTON  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION

SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca



**Member Data****Description: CalcG5**

Comments:

Member Type: Girder

Application: Floor

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Building Code: OBC-2012

Deflection Criteria: L/480 live, L/360 total

0.720" max. LL

Deck Connection: Nailed

Member Weight: 11.8 PLF

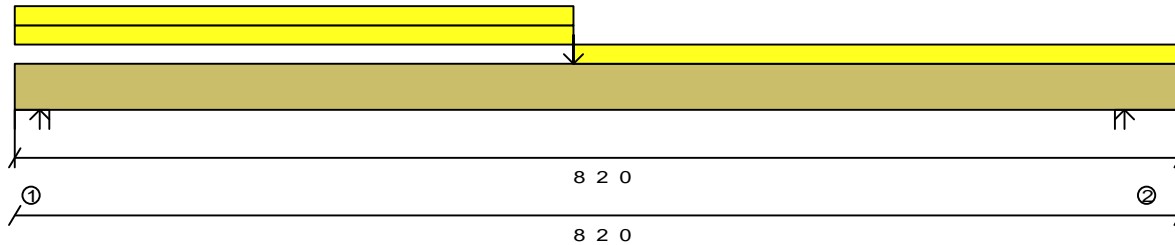
Filename: S:\CUSTOMERS

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads**

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	3' 11.00"		358		134		Live
Replacement Uniform (PLF)	Top	0' 0.00"	3' 11.00"		378		142		Live
Replacement Uniform (PLF)	Top	3' 11.00"	8' 2.00"		378		142		Live
Point (LBS)	Top	3' 11.00"			343		267		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.500"	5308#	--
2	8' 2.000"	Wall	N/A	N/A	1.500"	3954#	--

**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	2623#	1099#
2	1936#	839#

Design spans  
7' 7.250"**Product: 1 3/4x11 7/8 West Fraser 2.0E-3100F 2 ply****PASSES DESIGN CHECKS**

Design assumes continuous lateral bracing along the top chord.

Design assumes no lateral bracing along the bottom chord.

The aspect ratio for the determination of the lateral stability factor is based on the total width of the beam in accordance with Section 6.5.6.3.1 and 6.5.6.3.3 of CSA O86-09.

**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	9609. #	35386. #	27%	3.91'	Total Load 1.25D+1.5L
Shear	3859. #	13815. #	27%	0.19'	Total Load 1.25D+1.5L
TL Deflection	0.0874"	0.2535"	L/999+	3.91'	Total Load D+L
LL Deflection	0.0607"	0.1901"	L/999+	3.91'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: TL Deflection

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

**RECEIVED**  
**TOWN OF MILTON**  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION

24 MAR 2017

**READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.****Pass-Thru Framing Squash Block is  
required at all point loads over bearings****Refer to Multiple Member Connection  
Detail for ply to ply nailing or bolting  
requirements**

All product names are trademarks of their respective owners

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet. The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.

SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca



**Member Data****Description:** CalcB2**Comments:**

Member Type: Beam

Top Lateral Bracing: Continuous

Bottom Lateral Bracing: None

Moisture Condition: Dry

Deflection Criteria: L/480 live, L/360 total

Deck Connection: Nailed

Filename: S:\CUSTOMERS

Application: Floor

Building Code: OBC-2012

0.720" max. LL

Member Weight: 14.1 PLF

Standard Load:

Live Load: 0 PLF

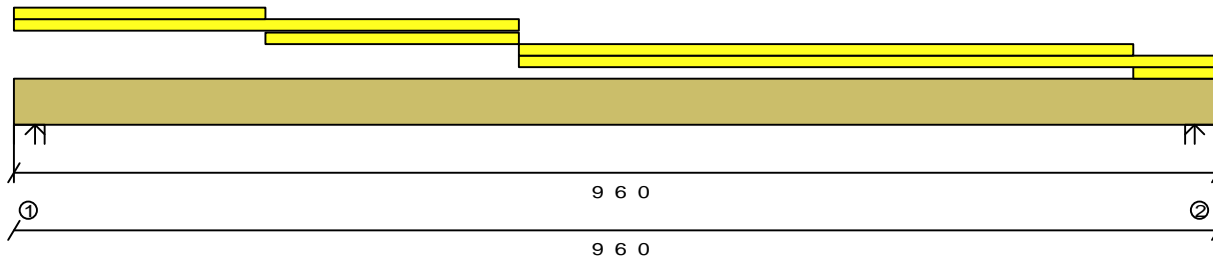
Dead Load: 0 PLF

Building Type: Residential

Importance Category: Normal (Part 9)

**Other Loads**

Type (Description)	Side	Begin	End	Trib. Width	Other Start	End	Dead Start	End	Category
Replacement Uniform (PLF)	Top	0' 0.00"	1' 11.94"		378		163		Live
Replacement Uniform (PLF)	Top	0' 0.00"	4' 0.00"		358		134		Live
Replacement Uniform (PLF)	Top	1' 11.94"	4' 0.00"		378		163		Live
Replacement Uniform (PLF)	Top	4' 0.00"	8' 10.00"		378		163		Live
Replacement Uniform (PLF)	Top	4' 0.00"	9' 6.00"		358		134		Live
Replacement Uniform (PLF)	Top	8' 10.00"	9' 6.00"		378		142		Live

**Bearings and Factored Reactions**

	Location	Type	Material	Input Length	Min Required	Gravity Reaction	Gravity Uplift
1	0' 0.000"	Wall	N/A	N/A	1.500"	6830#	--
2	9' 6.000"	Wall	N/A	N/A	1.500"	6818#	--

**Maximum Unfactored Load Case Reactions**

Used for applying point loads (or line loads) to carrying members

	Live	Dead
1	3369#	1422#
2	3369#	1412#

Design spans

9' 1.750"

**Product: 1 3/4x9 1/2 West Fraser 2.0E-3100F 3 ply****PASSES DESIGN CHECKS**Design assumes continuous lateral bracing along the top chord.  
Design assumes no lateral bracing along the bottom chord.**Limit States Design**

	Actual	Limit	Capacity	Location	Loading
Positive Moment	15617. #	36215. #	43%	4.75'	Total Load 1.25D+1.5L
Shear	5649. #	16578. #	34%	8.82'	Total Load 1.25D+1.5L
TL Deflection	0.2451"	0.3049"	L/447	4.75'	Total Load D+L
LL Deflection	0.1724"	0.2286"	L/636	4.75'	Total Load L

(Actual is factored load effects, Limit is design resistance)

Bearing length from point load of top loaded beams assumed to be 3.50"

Control: TL Deflection

Manufacturer's installation guide MUST be consulted for multi-ply connection details and alternatives

**RECEIVED**  
**TOWN OF MILTON**  
MAR 29, 2017  
JUNIPER 2  
BUILDING DIVISION**24 MAR 2017****READ ALL NOTES ON THIS PAGE AND ON THE  
ENGINEERING NOTE PAGE ENP-2. THE NOTE PAGE  
IS AN INTEGRAL PART OF THIS DRAWING AS IT  
CONTAINS SPECIFICATIONS AND CRITERIA USED  
IN THE DESIGN OF THIS COMPONENT.****Pass-Thru Framing Squash Block is  
required at all point loads over bearings****Refer to Multiple Member Connection  
Detail for ply to ply nailing or bolting  
requirements**

All product names are trademarks of their respective owners

Copyright (C) 2016 by Simpson Strong-Tie Company Inc. ALL RIGHTS RESERVED.

\*\*Passing is defined as when the member, floor joist, beam or girder shown on this drawing meets applicable design criteria for Loads, Loading Conditions, and Spans listed on this sheet.  
The design must be reviewed by a qualified designer or design professional as required for approval. This design assumes product installation according to the manufacturer's specifications.SB  
Nascor by KOTT  
14 Anderson Blvd.  
Uxbridge, ON.  
www.nascor.ca