



Engineering Notes: EWP-Floors

**MHP 23023**

PLEASE READ ALL NOTES PRIOR TO INSTALLATION OF THE COMPONENT

RESPONSIBILITIES

THE RESPONSIBILITY OF THE UNDERSIGNED ENGINEER IS ONLY LIMITED TO THE CALCULATION OF THIS BUILDING COMPONENT FOR THE LOADS AND CONDITIONS SHOWN ON THIS DRAWING.

THE RESPONSIBILITY OF THE UNDERSIGNED IS LIMITED TO THE VERIFICATION OF THE STRUCTURAL CAPACITY OF THE FLOOR JOISTS AND LVL BEAMS BASED ON PLACEMENT AS SHOWN ON THE LAYOUT. THE LOADS APPLIED ARE LIMITED TO THE GRAVITY EFFECTS OF THE SPECIFIED LOADS. THE STRUCTURAL INTEGRITY OF THE BUILDING AND THE EFFECT OF WIND, UPLIFT, SEISMIC, LATERAL OR OTHER FORCES, CALCULATION OF ADEQUATE SUPPORT AND ANCHORAGE OF COMPONENTS, AS WELL AS THE DIMENSIONS AND DESIGN LOADS USED TO CALCULATE COMPONENTS ARE THE RESPONSIBILITY OF THE OVERALL BUILDING DESIGNER. FLOOR JOISTS AND OSB RIM BOARD ARE DESIGNED TO CARRY UNIFORMLY DISTRIBUTED LOADS ONLY. POINT LOADS SHOULD BE TRANSFERRED THROUGH THE FLOOR CAVITY WITH TRANSFER BLOCKS. STRUCTURAL ELEMENTS SUCH AS WALLS, POSTS, CONNECTORS, AND TRANSFER BLOCKS ARE THE RESPONSIBILITY OF THE OVERALL BUILDING DESIGNER.

THE UNDERSIGNED ENGINEER DISCLAIMS ANY RESPONSIBILITY FOR DAMAGES AS A RESULT OF BEING FURNISHED FAULTY OR INCORRECT INFORMATION, SPECIFICATIONS AND/OR DESIGNS.

COMPONENT DESIGN INFORMATION

1. THIS BUILDING COMPONENT IS CERTIFIED AS AN INDIVIDUAL COMPONENT FOR THE LOADS AND CONDITIONS SHOWN ON THE CALCULATION PAGE BASED ON INFORMATION PROVIDED BY KOTT DESIGN.
2. THE BUILDING COMPONENT USED IN CONSTRUCTION MUST BE THE SAME AS INDICATED ON THE DRAWINGS.
3. UNLESS NOTED OTHERWISE ON THE LAYOUT OR BEAM CALCULATION SHEET, MEMBERS CONSISTING OF MULTIPLE PLIES MUST BE CONNECTED AS PER THE DOCUMENT "MULTIPLE MEMBER CONNECTION DETAILS" SHOWN ON PAGE 2 OF THIS DOCUMENT.
4. PASS-THRU TRANSFER BLOCK FRAMING IS REQUIRED AT ALL POINT LOADS OVER BEARINGS.
5. IT IS ASSUMED THAT EACH LVL BEAM WHERE NOT SEATED IN A HANGER IS ATTACHED USING (4) FOUR 3-1/4" COMMON SPIRAL NAILS FOR UP TO 5.5" LONG BEARINGS AND USING (6) SIX 3-1/4" COMMON SPIRAL NAILS FOR BEARINGS EQUAL TO OR LONGER THAN 5.5", UNLESS INDICATED OTHERWISE.

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.

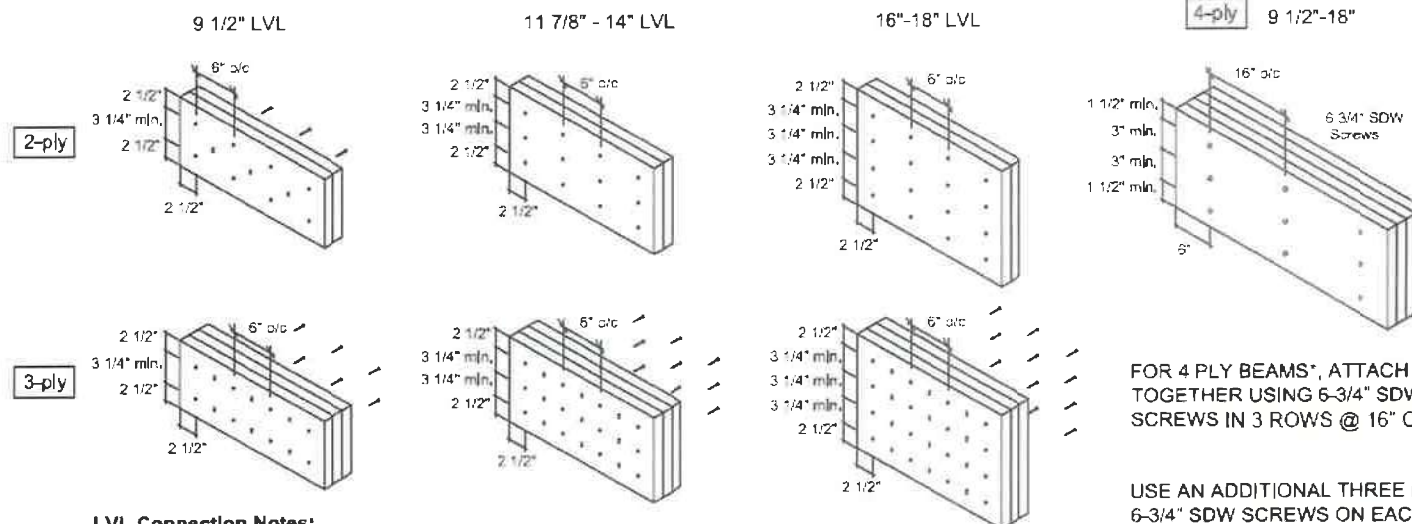
HANDLING AND INSTALLATION

1. DO NOT DRILL ANY HOLE, CUT OR NOTCH A CERTIFIED BUILDING COMPONENT WITHOUT A WRITTEN PRE-AUTHORIZATION.
2. INSTALLATION AND ASSEMBLY OF FLOOR JOISTS AND LVL BEAMS IS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUFACTURER'S LITERATURE.



MULTIPLE MEMBER CONNECTIONS FOR BEAMS SHOWN ON KOTT LAYOUTS

MULTIPLE MEMBER CONNECTIONS FOR UNIFORMLY DISTRIBUTED TOP & SIDE LOADED LVL BEAMS SHOWN ON KOTT LAYOUTS



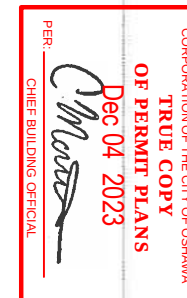
LVL Connection Notes:

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

FOR 4 PLY BEAMS*, ATTACH PLYS TOGETHER USING 6-3/4" SDW SCREWS IN 3 ROWS @ 16" C/C.

USE AN ADDITIONAL THREE (3) 6-3/4" SDW SCREWS ON EACH SIDE (OF EACH FACE) AT POINT LOAD LOCATIONS @ 1/2" SPACING, WHERE APPLICABLE.

*UNLESS NOTED OTHERWISE ON LAYOUT OR CALCULATION SHEET OF BEAM IN THE FLOOR PACKAGE



MHP 23023

FOR MULTIPLE MEMBER CONNECTION OF BOISE ALLJOISTS REFER TO THE BOISE CASCADE INSTALLATION GUIDE

Installation Guide



(Open your phone's camera and hover over this QR code to access it!)

Ground Floor

1. All blocking to be cut from 12' joists
2. 2' & 4' Lengths to be cut from 8' Length, 6' lengths to be cut from 12' Length
3. Ends of joists to be laterally supported
4. Packing of Steel beams and attachment by others
5. Shower and water closet flange locations are approximate only, consult architectural drawing for exact locations
6. Beams identified as "B" are dropped and supplied by others
7. Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls
8. Load transfer blocks to be installed under all point loads
9. Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements
10. Hangers and Fasteners to be installed as per manufacturer
11. Framing shown on this layout may deviate from architectural drawings, Arch / Eng to review and approve the deviation prior to construction.
12. Multi ply beams with side loading to have all fasteners installed with the head on the side of the applied load
13. Confirmation of adequate support & anchorage of components is the responsibility of the building designer, suggested uplift connectors are as shown
14. Where beam hangs on side of 3-ply member, it is recommended that the equivalent quantity and size of nails required for the hanger attachment also be installed on opposite side of the 3-ply member

Ground Floor
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Plyies	Pcs	Length
F8	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	2	2	12-0-0
F7	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5			1	12-0-0
F9	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	2	2	6-0-0
F6	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5			1	6-0-0
FH5	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	2	2	4-0-0
F5	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5			1	4-0-0

Joist (Flush)

Label	Description	Width	Depth	Pcs	Length
F4	AJS 140	2.5	9.5	5	14-0-0
F3	AJS 140	2.5	9.5	3	12-0-0
F2	AJS 140	2.5	9.5	2	4-0-0
F1	AJS 140	2.5	9.5	2	2-0-0
J3	AJS 140	2.5	9.5	25	14-0-0
J2	AJS 140	2.5	9.5	26	12-0-0
J1	AJS 140	2.5	9.5	5	10-0-0

Rim Board

Label	Description	Width	Depth	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5	14	12-0-0

Blocking

Label	Description	Width	Depth	Qty	Pcs	Length
BLK1	AJS 140	2.5	9.5	LinFt	Varies	39-0-0

Hanger

Label	Pcs	Description	Beam/Girder fasteners	Supported Member fasteners
H1	2	HUS1.81/10	30 16d	10 16d
H2	25	LF259	10 10d	1 #8x1 1/4WS
H3	1	LF359	10 10d	2 #8x1 1/4WS

JOB INFORMATION

Builder	GREENPARK
Project	ZADORRA ESTATES OSHAWA, ON
Sales Rep	RALPH MIRIGELLO
Designer	W C
Plotted	June 28, 2023
Layout Name	RIVER 3-1 STD
Job Path	S:\CUSTOMERS\GREENPARK\ZADORRA ESTATES MODELS\RIVER 3-1\RIVER 3-1 STD.dwg
DESIGN CRITERIA	US CANADA 2015 2020 (Update)

Ground Floor

Design Method	Building Code
Floor Loads	Live
Dead	
Deflection Joist	LL Span L / 360
Deflection Flush Girder	LL Span L / 240
Deflection Dropped Girder	LL Span L / 360
Deflection Header	LL Span L / 360
Decking	OSB
Thickness	3/4"
Fastener	Nailed & Glued

CCMC References

Boise - 12472-R, 1279-R
LP - 12412-R, Roseburg - 110-R
Forex - 14056-R

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
14 Anderson Blvd, Wybridge, Ontario

Kott Inc.

613-838-2775 / 905-642-4400

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
14 Anderson Blvd, Wybridge, Ontario

Kott Inc.

613-838-2775 / 905-642-4400

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
14 Anderson Blvd, Wybridge, Ontario

Kott Inc.

613-838-2775 / 905-642-4400

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
14 Anderson Blvd, Wybridge, Ontario

Kott Inc.

613-838-2775 / 905-642-4400

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
14 Anderson Blvd, Wybridge, Ontario

Kott Inc.

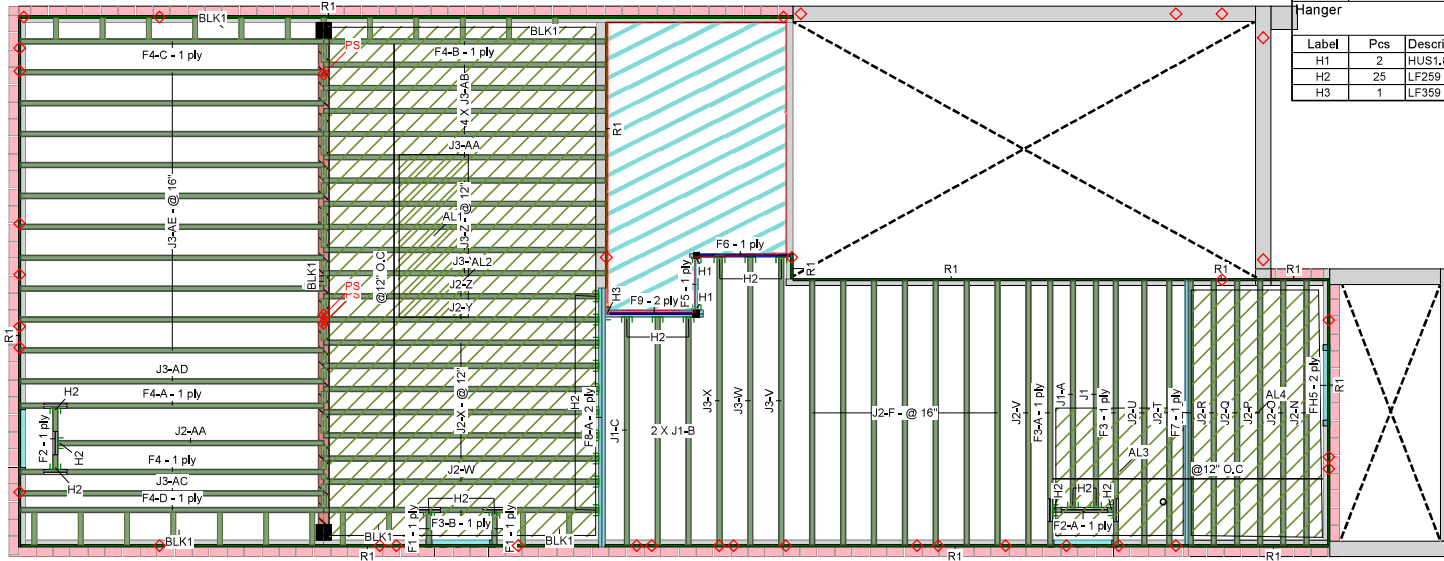
613-838-2775 / 905-642-4400

Kott Inc.

3228 Moodie Dr, Ottawa, Ontario
14 Anderson Blvd, Wybridge, Ontario

Kott Inc.

613-838-2775 / 905-642-4400



Installation Guide



(Open your phone's camera and
hover over this QR code to access it!)

Hatch Area represents where
additional load has been applied,
(e.g., 5 psf for ceramic tile)

Legend

PS	Point Load Support
Load from Above	
Wall	
Wall Opening	
Norbord Rimboard Plus 1.125 X 9.5	
AJS 140 9.5	
Versa-Lam LVL 2.1E 3100 SP 1.75 X 9.5	
1.75 X 9.5 (Dropped)	
5.25 X 8 (Dropped)	

1. All blocking to be cut from 12' joists
2. 2' & 4' Lengths to be cut from 8' Length, 6' Lengths to be cut from 12' Length
3. Ends of joists to be laterally supported
4. Packing of Steel beams and attachment by others
5. Shower and water closet flange locations are approximate only, consult architectural drawing for exact locations
6. Beams identified as "B" are dropped and supplied by others
7. Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls
8. Load transfer blocks to be installed under all point loads
9. Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements
10. Hangers and Fasteners to be installed as per manufacturer
11. Framing shown on this layout may deviate from architectural drawings, Arch / Eng to review and approve the deviation prior to construction.
12. Multi ply beams with side loading to have all fasteners installed with the head on the side of the applied load
13. Confirmation of adequate support & anchorage of components is the responsibility of the building designer; suggested uplift connectors are as shown
14. Where beam hangs on side of 3-ply member, it is recommended that the equivalent quality and size of nails required for the hanger attachment also be installed on opposite side of the 3-ply member

Ground Floor

LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Plies	Pcs	Length
F8	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	2		12'-0"
F7	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5			1	12'-0"
F9	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	2	2	6'-0"
F6	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5			1	6'-0"
FH5	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	2	2	4	4'-0"
F5	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5			1	4'-0"

I Joist (Flush)

Label	Description	Width	Depth	Pcs	Length
F4	AJS 140	2.5	9.5	3	14'-0"
F3	AJS 140	2.5	9.5	3	12'-0"
F2	AJS 140	2.5	9.5	1	4'-0"
F1	AJS 140	2.5	9.5	2	2'-0"
J3	AJS 140	2.5	9.5	28	14'-0"
J2	AJS 140	2.5	9.5	25	12'-0"
J1	AJS 140	2.5	9.5	5	10'-0"

Rim Board

Label	Description	Width	Depth	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 9.5	1.125	9.5	14	12'-0"

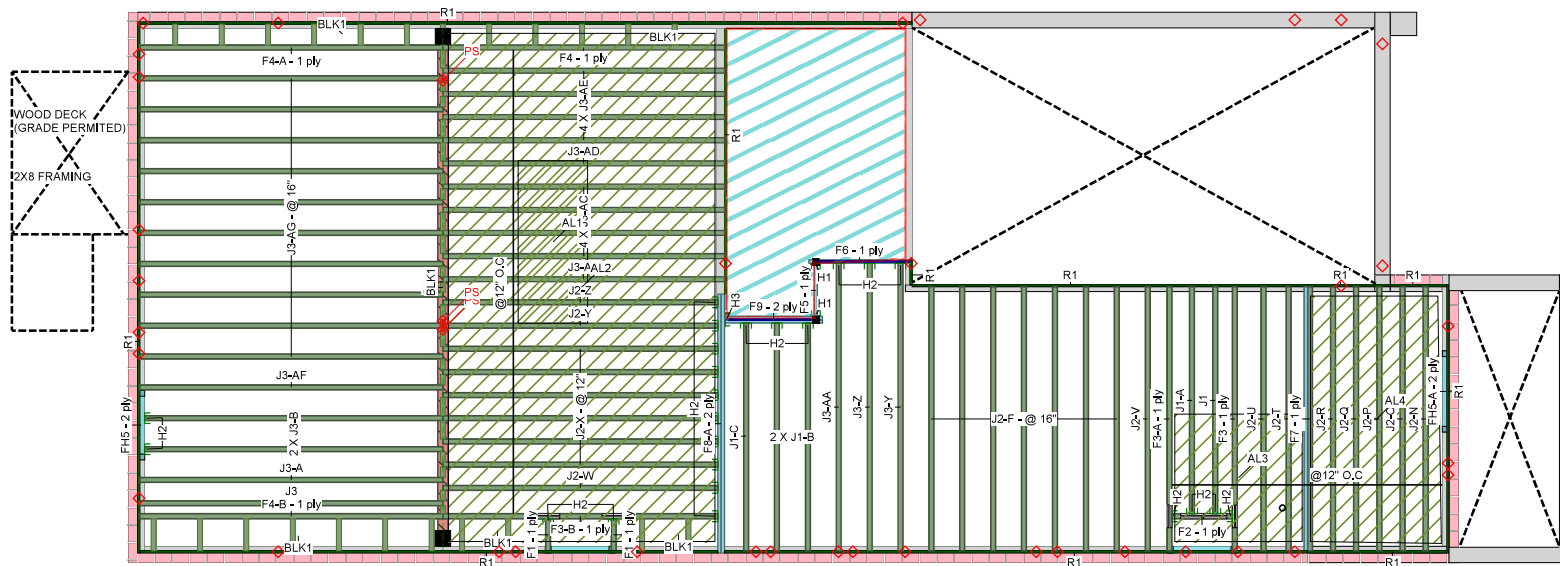
Blocking

Label	Description	Width	Depth	Qty	Pcs	Length
BLK1	AJS 140	2.5	9.5	LinFt	Varies	39'-0"

Hanger

Hanger		Beam/Girder fasteners	Supported Member fasteners	
H1	2	HUS1.81/10	30 16d	10 16d
H2	24	LF259	10 10d	1 #8x1 1/4WS
H3	1	LF359	10 10d	2 #8x1 1/4WS

JOB INFORMATION	
Builder	GREENPARK
Project	
Shipping	ZADORRA ESTATES OSHAWA, ON
Sales Rep	RALPH MIRIGELLO
Designer	W C
Plotted	June 28, 2023
Layout Name	RIVER 3-I DC
Job Path	S:\CUSTOMERS\GREENPARK\ZADORRA ESTATES\1MODELS\RIVER 3\1VFR 3-1VFR 3-1IDECK CONDITION\1VFR 3
DESIGN CRITERIA	PERMIT BUILDING OFFICIAL  Dec 04 2023 IRMS COPY OF THE PERMIT PLANS CITY OF TORONTO
Ground Floor	
Design Method	Stress Analysis
Building Code	2015
Live	360
Dead	240
Deflection Joist	
LL Span /	360
TL Span /	240
Deflection Flush Girder	
LL Span /	360
TL Span /	240
Deflection Dropped Girder	
LL Span /	360
TL Span /	240
Deflection Header	
LL Span /	360
TL Span /	240
Decking	
Decking	OSB
Thickness	3/4"
Fastener	Nailed & Glued
CCMC References	
Boise - 12472-R, 12787-R	
LP - 12412-R, Roseburg - 1010-R	
Forex - 14058-R	
Kott Inc.	
3228 Moodie Dr, Orillia, Ontario	
14 Anderson Blvd, Uxbridge, Ontario	
613-838-2775 / 905-642-4400	



 Hatch Area represents where additional load has been applied. (e.g. 5 psf for ceramic tile)

Legend

PS	Point Load Support
◆	Load from Above
	Wall
	Wall Opening
	Norbord Rimboard Plus 1,125 X 9,5
	AJS 140 9,5
	Versa-Lam LVL 2.1E 3100 SP 1,75 X 9,5
	1,75 X 9,5 (Dropped)
	5,25 X 8 (Dropped)

Second Floor

FNG-IM0623-163-KTE-GREENPARK-ZADORRA ESTATES-RIVER 3-1

1. All blocking to be cut from 12' joists
2. 2' & 4' Lengths to be cut from 8' Length, 6' Lengths to be cut from 12' Length
3. Ends of joists to be laterally supported
4. Packing of Steel beams and attachment by others
5. Shower and water closet flange locations are approximate only, consult architectural drawing for exact locations
6. Beams identified as "B" are dropped and supplied by others
7. Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls
8. Load transfer blocks to be installed under all point loads
9. Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements
10. Hangers and Fasteners to be installed as per manufacturer
11. Framing shown on this layout may deviate from architectural drawings. Arch / Eng to review and approve the deviation prior to construction.
12. Multi ply beams with side loading to have all fasteners installed with the head on the side of the applied load
13. Confirmation of adequate support & anchorage of components is the responsibility of the building designer, suggested uplift connectors are as shown
14. Where beam hangs on side of 3-ply member, it is recommended that the equivalent quantity and size of nails required for the hanger attachment also be installed on opposite side of the 3-ply member

Second Floor
LVL/LSL (Flush)

Label	Description	Width	Depth	Qty	Plyies	Pcs	Length
F8	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	2	2	12-0-0
F10	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	2	2	10-0-0

Joist (Flush)

Label	Description	Width	Depth	Pcs	Length
J3	AJS 140	2.5	9.5	43	14-0-0
J2	AJS 140	2.5	9.5	34	12-0-0

Rim Board

Label	Description	Width	Depth	Pcs	Length
R1	Norbord Rimboard Plus 1,125 X 9.5	1.125	9.5	14	12-0-0

Blocking

Label	Description	Width	Depth	Qty	Pcs	Length
BLK1	AJS 140	2.5	9.5	LinFt	Vanes	42-0-0

Hanger

Label	Pcs	Description	Beam/Girder fasteners	Supported Member fasteners
H2	8	LF259	10 10d	1 #8x1 1/4WS

JOB INFORMATION

Builder	GREENPARK
Project	ZADORRA ESTATES OSHAWA ON
Shipping	
Sales Rep	RALPH MIRIGELLO
Designer	W C
Plotted	June 28, 2023
Layout Name	RIVER 3-1 STD 8-00
Job Path	S:\CUSTOMERS\GREENPARK\ZADORRA ESTATES\MODELS\RIVER 3-1\F-RIVER 3-1\W C\3-1 STD.H

DESIGN CRITERIA

Second Floor	
Design Method	ASD Canadian
Building Code	OSCC 2015 2/2023 Update

Floor Loads

Live	
Dead	
Deflection Joist	
LL Span / L	360
TL Span / L	240

Deflection Flush Girder

LL Span / L	360
TL Span / L	240

Deflection Dropped Girder

LL Span / L	360
TL Span / L	240

Deflection Header

LL Span / L	360
TL Span / L	240

Decking

Decking	OSB
Thickness	5/8"

Fastener

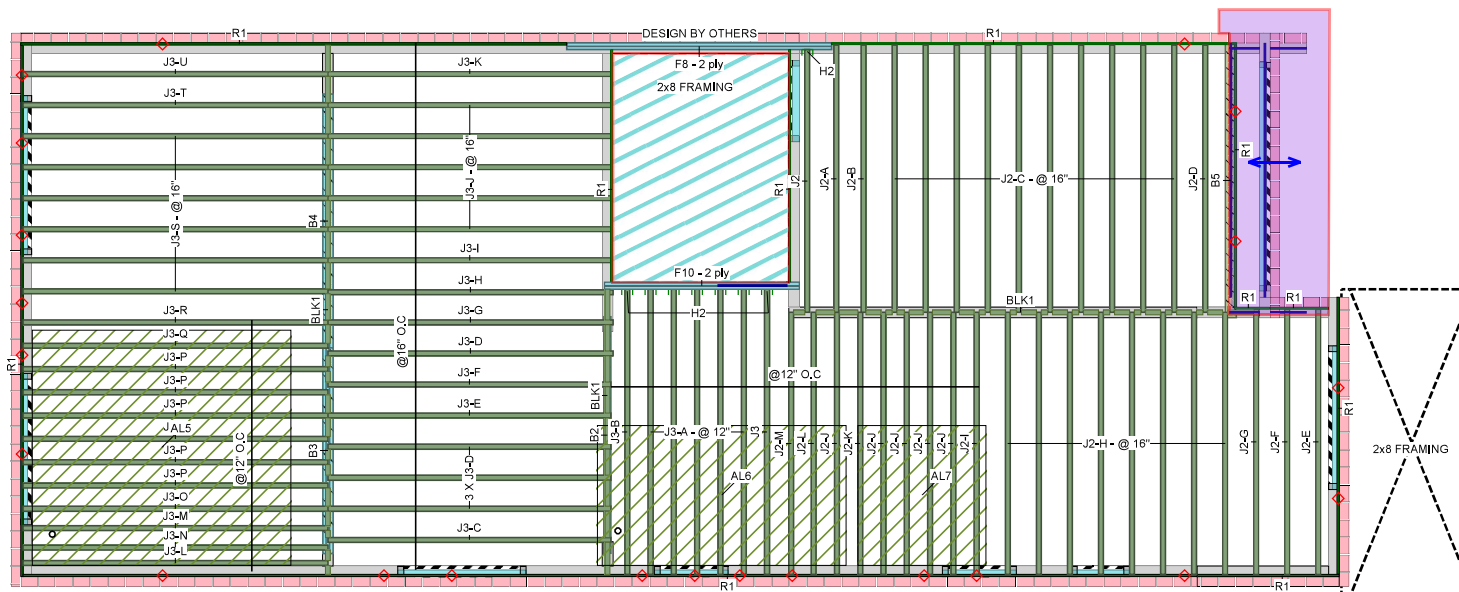
Nailed & Glued

CCMC References

Boise - 12472-R, 12787-R
 LP - 12412-R, Roseburg - 13310-R
 Forex - 14058-R

Kott Inc.

3228 Moodie Dr, Ottawa
 14 Anderson Blvd, Toronto
 Ontario
 613-838-2775 /
 905-642-4400



Installation Guide



(Open your phone's camera and
 hover over this QR code to access it)

Hatch Area represents where
 additional load has been applied,
 (e.g. 5 psf for ceramic tile)

Legend

PS	Point Load Support
◇	Load from Above
▨	Wall
▧	Wall Opening
▩	Norbord Rimboard Plus 1,125 X 9.5
▪	AJS 140 9.5
▫	Versa-Lam LVL 2.1E 3100 SP 1.75 X 9.5
▬	1.75 X 9.5 (Dropped)
▭	5.75 X 10.25 (Dropped)