

Engineering Notes: EWP-Floors

**MHP 23024**

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.

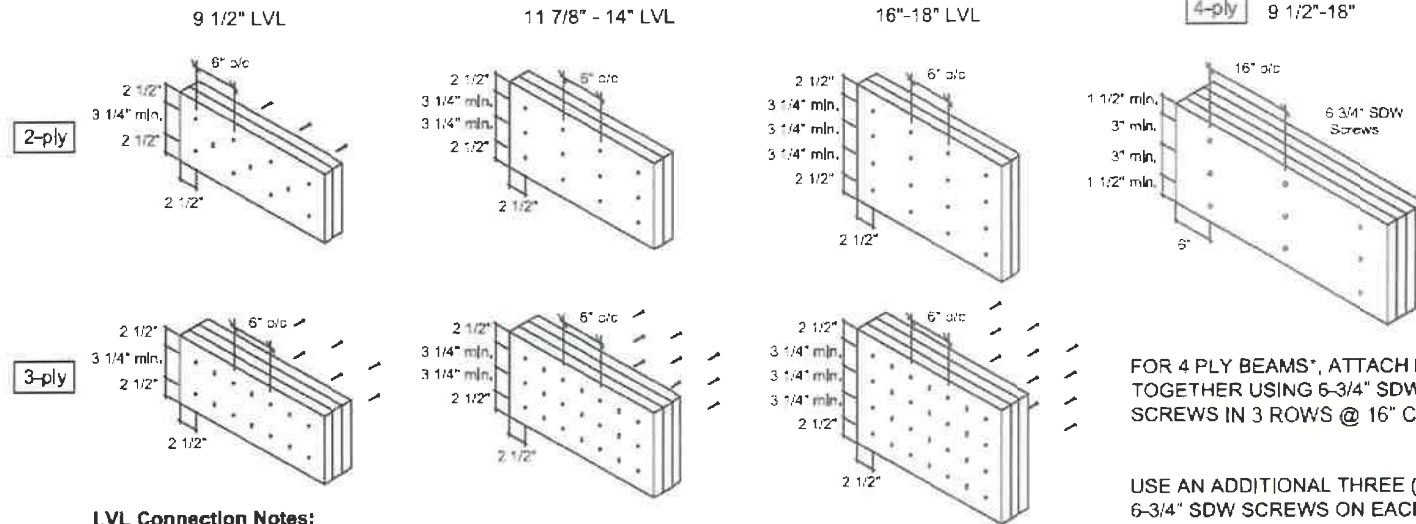
**HANDLING AND INSTALLATION**

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



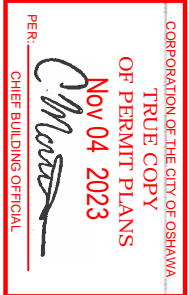
#### LVL Connection Notes:

- 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 23024

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

## Installation Guide



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

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	Plies	Pcs	Length
F10	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	2	2	14-0-0
F4	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5			1	14-0-0
F9	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	3	3	12-0-0
F7	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	3	2	6	8-0-0
F6	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	2	2	6-0-0
F5	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	2	2	4-0-0
FH5	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	2	2	4-0-0
F8	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	2	2	2-0-0

## Joist (Flush)

Label	Description	Width	Depth	Pcs	Length
J6	AJS 140	2.5	9.5	46	14-0-0
J5	AJS 140	2.5	9.5	16	12-0-0
J4	AJS 140	2.5	9.5	2	10-0-0
J3	AJS 140	2.5	9.5	5	8-0-0
J2	AJS 140	2.5	9.5	2	4-0-0
J1	AJS 140	2.5	9.5	3	2-0-0
F3	AJS 140	2.5	9.5	2	14-0-0
F2	AJS 140	2.5	9.5	2	12-0-0
F1	AJS 140	2.5	9.5	2	4-0-0

## Rim Board

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

## Blocking

Label	Description	Width	Depth	Qty	Pcs	Length
BLK1	AJS 140	2.5	9.5	LinFt	Varies	21-0-0

## Hanger

Label	Pcs	Description	Beam/Girder fasteners	Supported Member fasteners
H1	18	LF258	10 10dx1 1/2	1 #8x1 1/4WS
H2	3	LF358	10 10d	2 #8x1 1/4WS
H4	2	HUC410 (Min)	14 16d	6 10d

## Custom

Description	Pcs
H2,5A	1

## JOB INFORMATION

<b>Builder</b>	GREENPARK
<b>Project</b>	
<b>Shipping</b>	ZADORRA ESTATES OSHAWA, ON
<b>Sales Rep</b>	RALPH MIRIGELLO
<b>Designer</b>	W C
<b>Plotted</b>	June 29, 2023
<b>Layout Name</b>	RIVER 5-3 STD
<b>Job Path</b>	S:\CUSTOMERS\GREENPARK\ZADORRA ESTATES MODELS\RIVER 5\RIVER 5-3F-RIVER 5-3\RIVER 5-3 STD.dwg

## DESIGN CRITERIA

<b>Ground Floor</b>	LSD (Canada)
<b>Design Method</b>	NBCC 2015
<b>Building Code</b>	OBC 2012(2020 Update)

<b>Floor Loads</b>		
Live		40
Dead		15
<b>Deflection</b>		
LL Spac		360
TL Spac		240
<b>Deflection</b>		
LL Spac		360
TL Spac		240
<b>Deflection</b>		
LL Spac		360
TL Spac		240
<b>Deflection</b>		
LL Spac		360
TL Spac		240
<b>Decking</b>		
Thickness		3/4"
Fastener		Nailed & Glued

## CCMC References

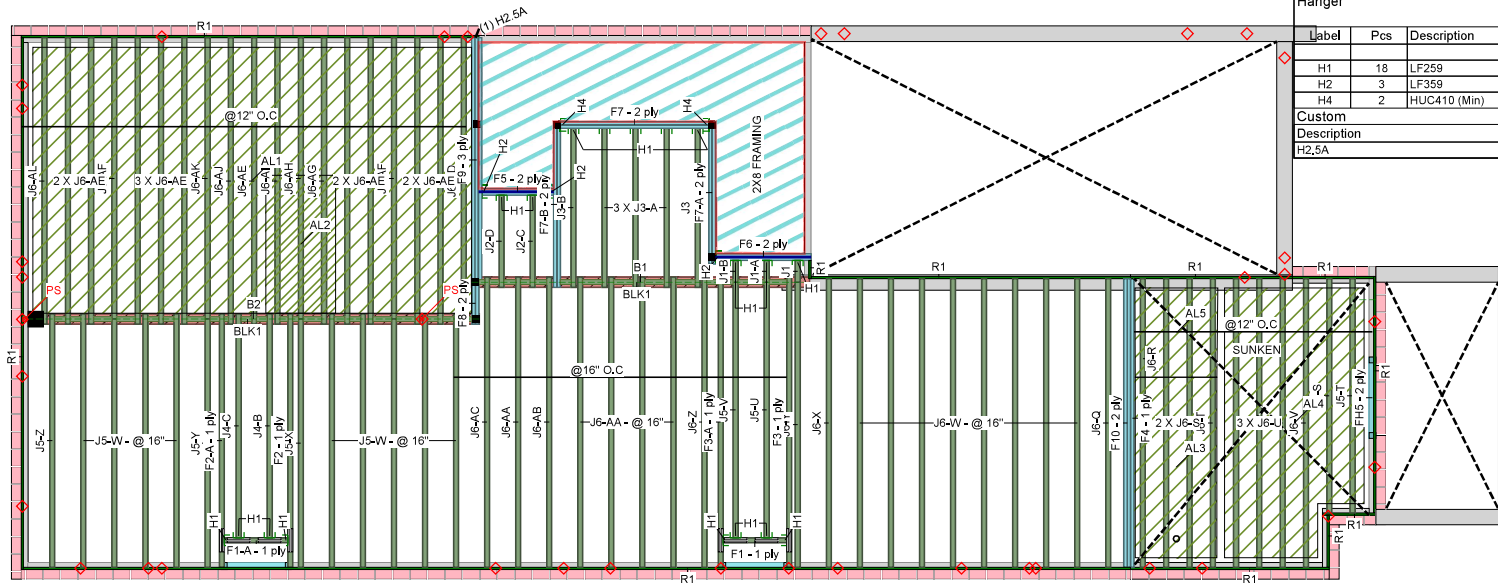
Boise - 12472-R, 12787-R
LP - 12412-R, Roseburg -
Forex - 14056-R

## Kott Inc.

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

## 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)	



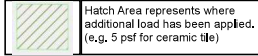
Hatched Area represents where additional load has been applied, (e.g. 5 psf for ceramic tile)

MHP 23024

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OF PERMIT PLANS  
CORPORATION OF THE CITY OF OSHAWA

KOTT

## Ground Floor



## Installation Guide



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

- All blocking to be cut from 12' joists
- 2' & 4' Lengths to be cut from 8' Length, 6' lengths to be cut from 12' Length
- Ends of joists to be laterally supported
- Packing of Steel beams and attachment by others
- Shower and water closet flange locations are approximate only, consult architectural drawing for exact locations
- Beams identified as "B" are dropped and supplied by others
- Install 2x4 blocking @ 24" o/c under parallel non-loadbearing walls
- Load transfer blocks to be installed under all point loads
- Refer to Multiple Member Connection Detail for ply to ply nailing or bolting requirements
- Hangers and Fasteners to be installed as per manufacturer
- Framing shown on this layout may deviate from architectural drawings, Arch / Eng to review and approve the deviation prior to construction.
- Multi ply beams with side loading to have all fasteners installed with the head on the side of the applied load
- Confirmation of adequate support & anchorage of components is the responsibility of the building designer, suggested uplift connectors are as shown
- 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	Plies	Pcs	Length
F10	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	2	2	14'-0"
F4	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	2	1	14'-0"
F9	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	3	3	12'-0"
F7	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	3	2	6	8'-0"
F6	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	2	2	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	2	2	4'-0"
F1	Versa-Lam LVL 2.1E 3100 SP	1.75	9.5	1	2	2	2'-0"

## I Joist (Flush)

Label	Description	Width	Depth	Pcs	Length
J6	AJS 140	2.5	9.5	46	14'-0"
J5	AJS 140	2.5	9.5	16	12'-0"
J4	AJS 140	2.5	9.5	2	10'-0"
J3	AJS 140	2.5	9.5	5	8'-0"
J2	AJS 140	2.5	9.5	2	4'-0"
J1	AJS 140	2.5	9.5	3	2'-0"
F3	AJS 140	2.5	9.5	2	14'-0"
F2	AJS 140	2.5	9.5	2	12'-0"
F1	AJS 140	2.5	9.5	2	4'-0"

## Rim Board

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

## Blocking

Label	Description	Width	Depth	Qty	Pcs	Length
BLK1	AJS 140	2.5	9.5	LinFt	Varies	21'-0"

## Hanger

Label	Pcs	Description	Beam/Girder fasteners	Supported Member fasteners
H1	18	LF259	10 10dx1 1/2	1 #8x1 1/4WS
H2	3	LF359	10 10d	2 #8x1 1/4WS
H4	2	HUC410 (Min)	14 16d	6 10d

## Custom

Description	Pcs
H2,5A	1

## JOB INFORMATION

<b>Builder</b>	GREENPARK
<b>Project</b>	ZADORRA ESTATES OSHAWA ON
<b>Shipping</b>	RIVER 5-3 DC
<b>Sales Rep</b>	RALPH MIRIGELLO
<b>Designer</b>	W C
<b>Plotted</b>	June 29, 2023
<b>Layout Name</b>	RIVER 5-3 DC
<b>Job Path</b>	S:\CUSTOMERS\GREENPARK\ZADORRA ESTATES MODELS\RIVER 5\RIVER 5-3F-RIVER 5-3\DECK CONDITION\RIVER 5-3 DC.dwg

## DESIGN CRITERIA

<b>Ground Floor</b>	LSD (Canada)
<b>Design Method</b>	NBCC 2015
<b>Building Code</b>	OBC 2012(2020 Update)

<b>Floor Loads</b>	40
Live	15
Dead	360
<b>Deflection</b>	240
LL Sp	360
TL Sp	240
<b>Deflection</b>	360
LL Sp	240
TL Sp	360
<b>Deflection</b>	240
LL Sp	360
TL Sp	240
<b>Decking</b>	OSB
Thickness	3/4"
Fastener	Nailed & Glued

## CCMC References

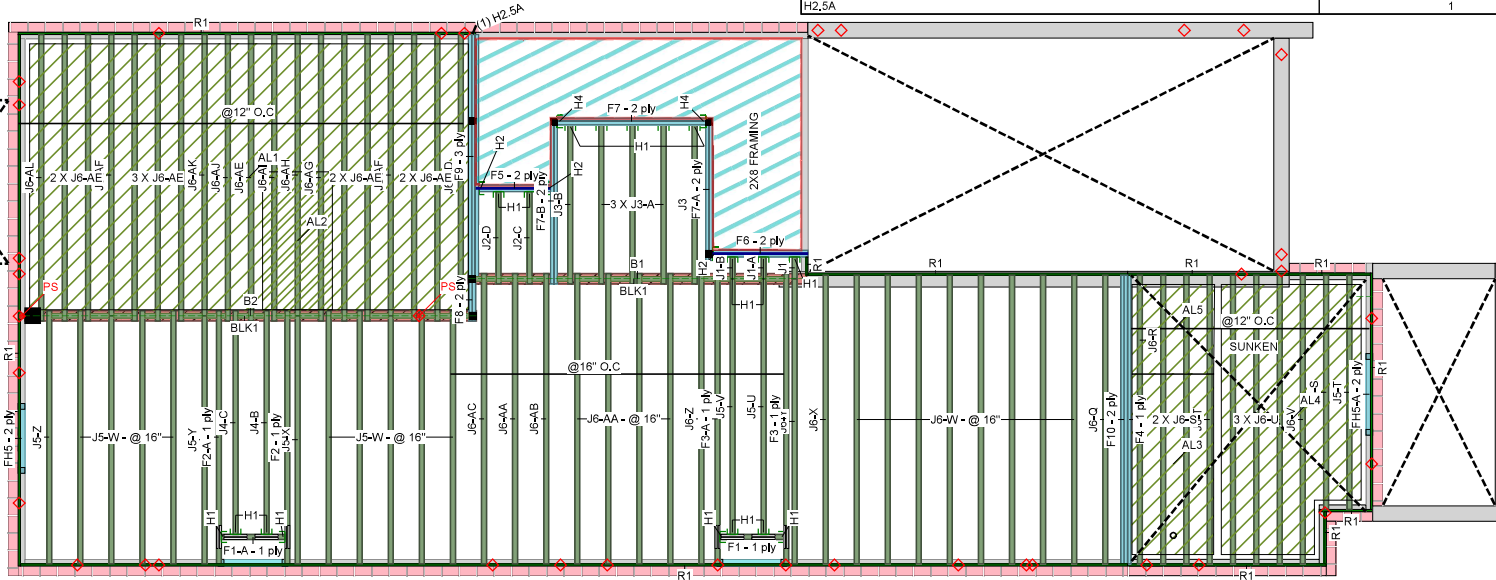
Boise - 12472-R, 12787-R
LP - 12412-R, Roseburg -
Forex - 14056-R

## Kott Inc.

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

## 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)	



MHP 23024



## Second Floor

## Installation Guide



[Open your phone's camera and hover over this QR code to access it]

ENG-IM0723-017-KTE-GREENPARK-ZADORRA ESTATES-RIVER 5-3

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	Plys	Pcs	Length
F14	Versa-Lam LVL 2.1E 3100 SP	1,75	9,5	1	3	3	20'-0"
F12	Versa-Lam LVL 2.1E 3100 SP	1,75	9,5	1	3	3	16'-0"
F11	Versa-Lam LVL 2.1E 3100 SP	1,75	9,5	1	2	2	16'-0"
F13	Versa-Lam LVL 2.1E 3100 SP	1,75	11,875	1	3	3	18'-0"

## Joist (Flush)

Label	Description	Width	Depth	Pcs	Length
J6	AJS 140	2,5	9,5	31	14'-0"
J5	AJS 140	2,5	9,5	48	12'-0"
J4	AJS 140	2,5	9,5	2	10'-0"
J2	AJS 140	2,5	9,5	11	4'-0"

## Rim Board

Label	Description	Width	Depth	Pcs	Length
R1	Norbord Rimboard Plus 1,125 X 9,5	1,125	9,5	12	12'-0"

## Blocking

Label	Description	Width	Depth	Qty	Pcs	Length
BLK1	AJS 140	2,5	9,5	Varies	Varies	18'-0"

## Hanger

Label	Pcs	Description	Beam/Girder fasteners	Supported Member fasteners
H1	67	LF259	10 10d	1 #9x1 1/4WS
H2	1	LF359	10 10d	2 #9x1 1/4WS

## Custom

Description	Pcs
H2,5A	1

## JOB INFORMATION

<b>Builder</b>	GREENPARK
<b>Project</b>	ZADORRA ESTATES OSHAWA, ON
<b>Shipping</b>	RIVER 5-3 STD
<b>Sales Rep</b>	RALPH MIRIGELLO
<b>Designer</b>	W C
<b>Plotted</b>	June 29, 2023
<b>Layout Name</b>	RIVER 5-3 STD
<b>Job Path</b>	S:\CUSTOMERS\GREENPARK\ZADORRA ESTATES MODELS\RIVER 5\RIVER 5-3F-RIVER 5-3\RIVER 5-3 STD.dwg

## DESIGN CRITERIA

<b>Second Floor</b>	LSD (Canada)
<b>Design Method</b>	NBCC 2015
<b>Building Code</b>	OBC 2012(2020 Update)

<b>Floor Loads</b>		
Live	40	
Dead	15	
<b>Deflection</b>		
LL Span	360	
TL Span	240	
<b>Deflection</b>		
LL Span	360	
TL Span	240	
<b>Deflection</b>		
LL Span	360	
TL Span	240	
<b>Decking</b>		
Decking	OSB	
Thickness	5/8"	
Fastener	Nailed & Glued	

## CCMC References

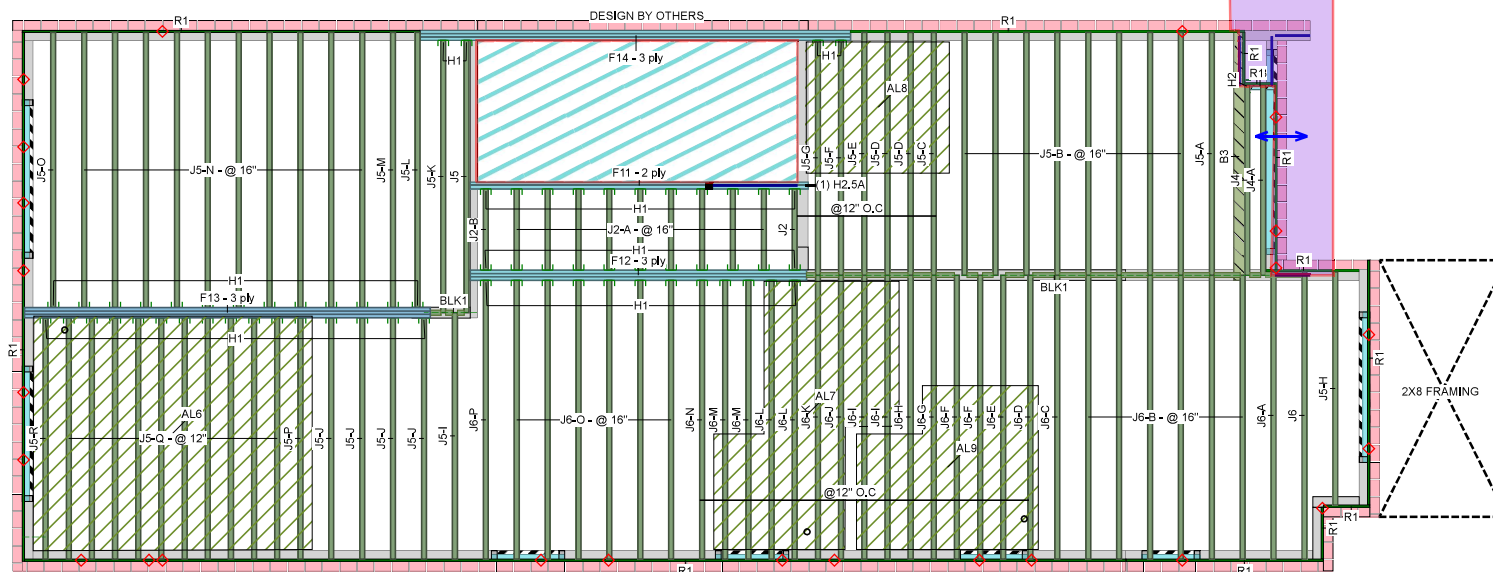
Boise - 12472-R, 12787-R
LP - 12412-R, Roseburg - 12412-R
Forex - 14056-R

<b>Kott Inc.</b>
3228 Moodie Dr, Ottawa
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Ontario
613-838-2775 / 905-642-4400

## 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	
Versa-Lam LVL 2.1E 3100 SP 1,75 X 9,5	

F13-A 11 7/8" BEAM NEED TO BE DROP 2 3/8" TO BE FLUSH WITH FLOOR AS FLOOR HAS 9 1/2" DEPTH



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

MHP-23024

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