

**Engineering Notes: EWP-Floors**

CORPORATION OF THE CITY OF OSHAWA  
TRUE COPY  
OF PERMIT PLANS  
Nov 16 2023

PLEASE READ ALL NOTES BEFORE 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.



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PER: 

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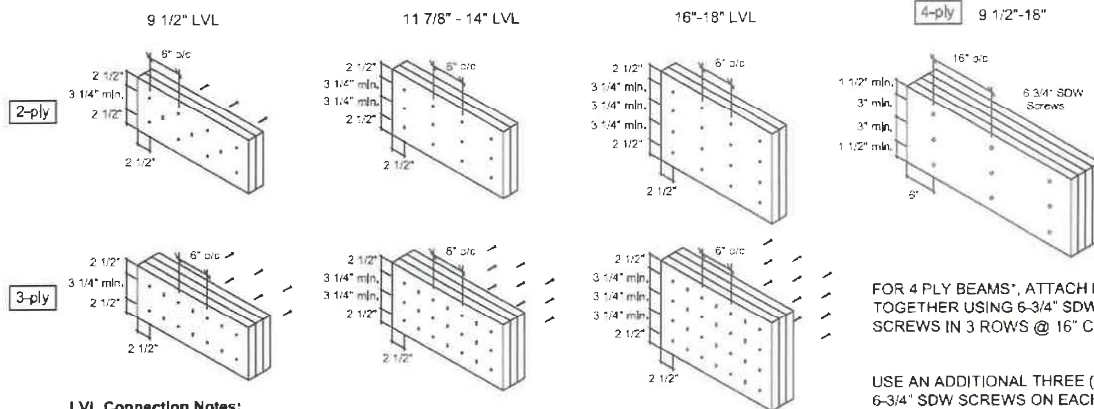
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## MULTIPLE MEMBER CONNECTIONS FOR BEAMS SHOWN ON KOTT LAYOUTS



## MULTIPLE MEMBER CONNECTIONS FOR UNIFORMLY DISTRIBUTED TOP &amp; 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

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)

Last Revised January 13, 2023



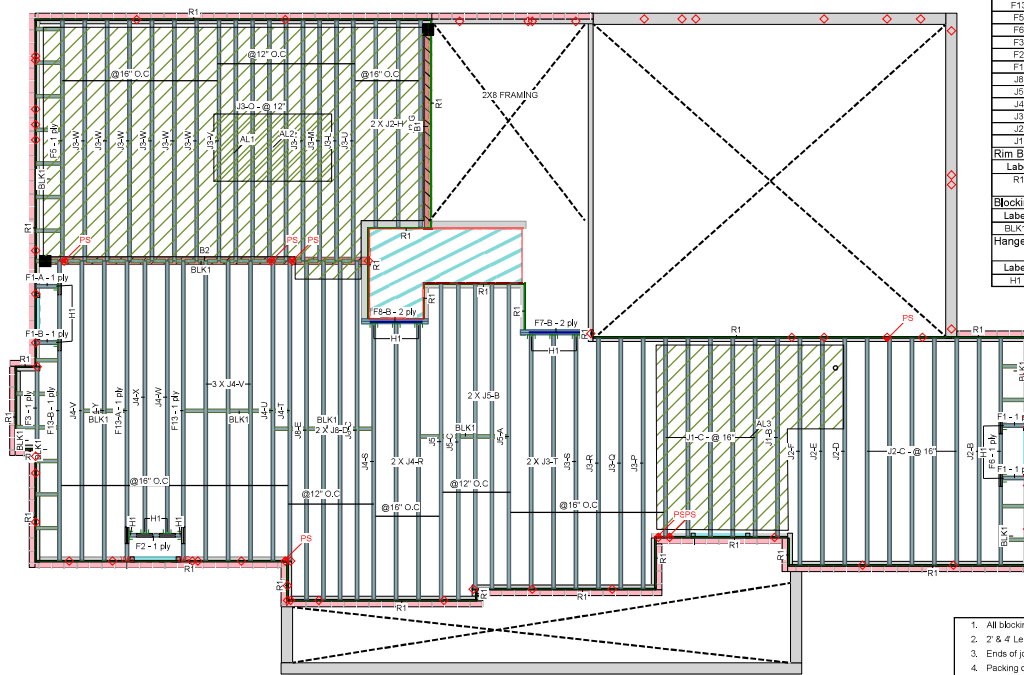
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## Ground Floor



Ground Floor LVL/LSL (Flush)							
Label	Description	Width	Depth	Qty	Pies	Pcs	Length
F7	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	6-0-0
F8	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	4-0-0
Joist (Flush)							
Label	Description	Width	Depth	Qty	Pies	Pcs	Length
F13	AJS 140	2.5	11.875	3	18-0-0		
F5	AJS 140	2.5	11.875	1	16-0-0		
F6	AJS 140	2.5	11.875	1	14-0-0		
F3	AJS 140	2.5	11.875	1	6-0-0		
F2	AJS 140	2.5	11.875	1	4-0-0		
F1	AJS 140	2.5	11.875	4	2-0-0		
J8	AJS 140	2.5	11.875	4	22-0-0		
J5	AJS 140	2.5	11.875	5	20-0-0		
J4	AJS 140	2.5	11.875	12	18-0-0		
J3	AJS 140	2.5	11.875	21	16-0-0		
J2	AJS 140	2.5	11.875	12	14-0-0		
J1	AJS 140	2.5	11.875	6	12-0-0		
Rim Board							
Label	Description	Width	Depth	Qty	Pies	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875	17			12-0-0
Blocking							
Label	Description	Width	Depth	Qty	Pies	Pcs	Length
BLK1	AJS 140	2.5	11.875	1	55-0-0		
Hanger							
Label	Description	Width	Depth	Qty	Pies	Pcs	Length
H1	LP2511	1.4	12.10x1 1/2	1	48x1 1/4VIS		

JOB INFORMATION	
Builder	GREENPARK
Project	ZADORRA ESTATES OSHAWA, ON
Shipping	W.C.
Sales Rep	RALPH MIRIGELLO
Designer	
Plotted	May 19, 2023
Layout Name	CAROL 12-2 STD
Job Path	S:\CUSTOMERS\GREENPARK\ZADORRA ESTATES MODELS\CAROL 12-2\CAROL 12-2P-CAROL 12-2 VCAROL 12-2 STD.dwg

DESIGN CRITERIA	
Design Method	LSD (Canada)
Bulking Code	NBCC 2015 CBC (2012/2020 Update)

Ground Floor	
Design Method	LSD (Canada)
Bulking Code	NBCC 2015 CBC (2012/2020 Update)
Floor Loads	
Live	40
Dead	15
Deflection Joist	
LL Span /	480
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	OSB
Thickness	3/4"
Fastener	Nailed & Glued

CCMC References	
Boise - 12472-R, 12787-R	
LP - 12412-R, Roseburg - 13310-R	
Forex - 14056-R	
Kott Inc.	
3228 Moode Dr, Ottawa	
14 Anderson Blvd, Uxbridge	
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)

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 replacement quantity and size of nails required for the hanger attachment also be installed on opposite side of the 3-ply member

## Legend

VS	Web Stiffener
VS	In Hanger Label Denotes Web Stiffener
PS	Point Load Support
Load from Above	
WALL	WALL
Wall Opening	
Norbord Rimboard Plus 1.125 X 11.875	
AJS 140 11.875	
Versa-Lam LVL 2.1E 3100 SP 1.75 X	



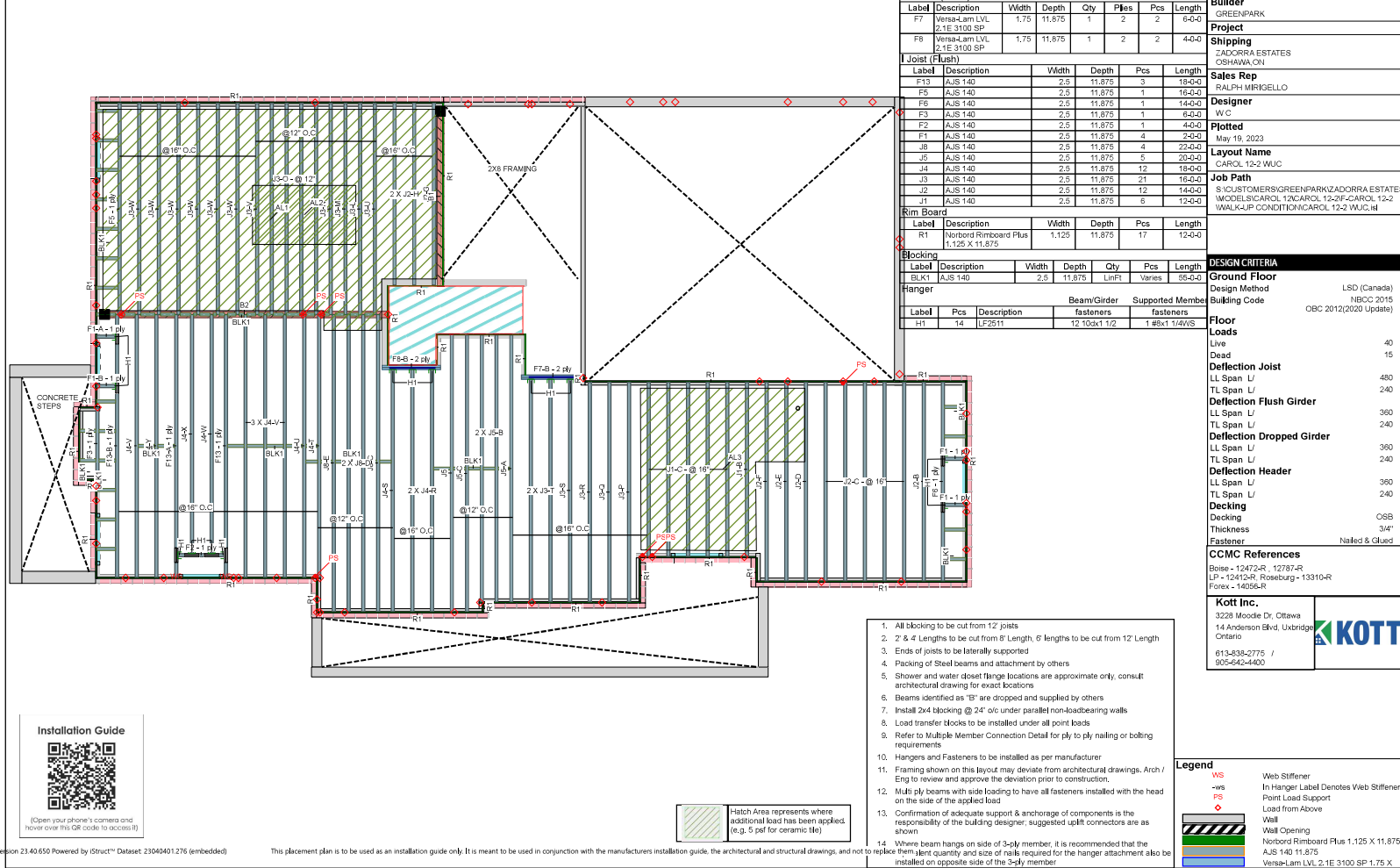
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Ground Floor









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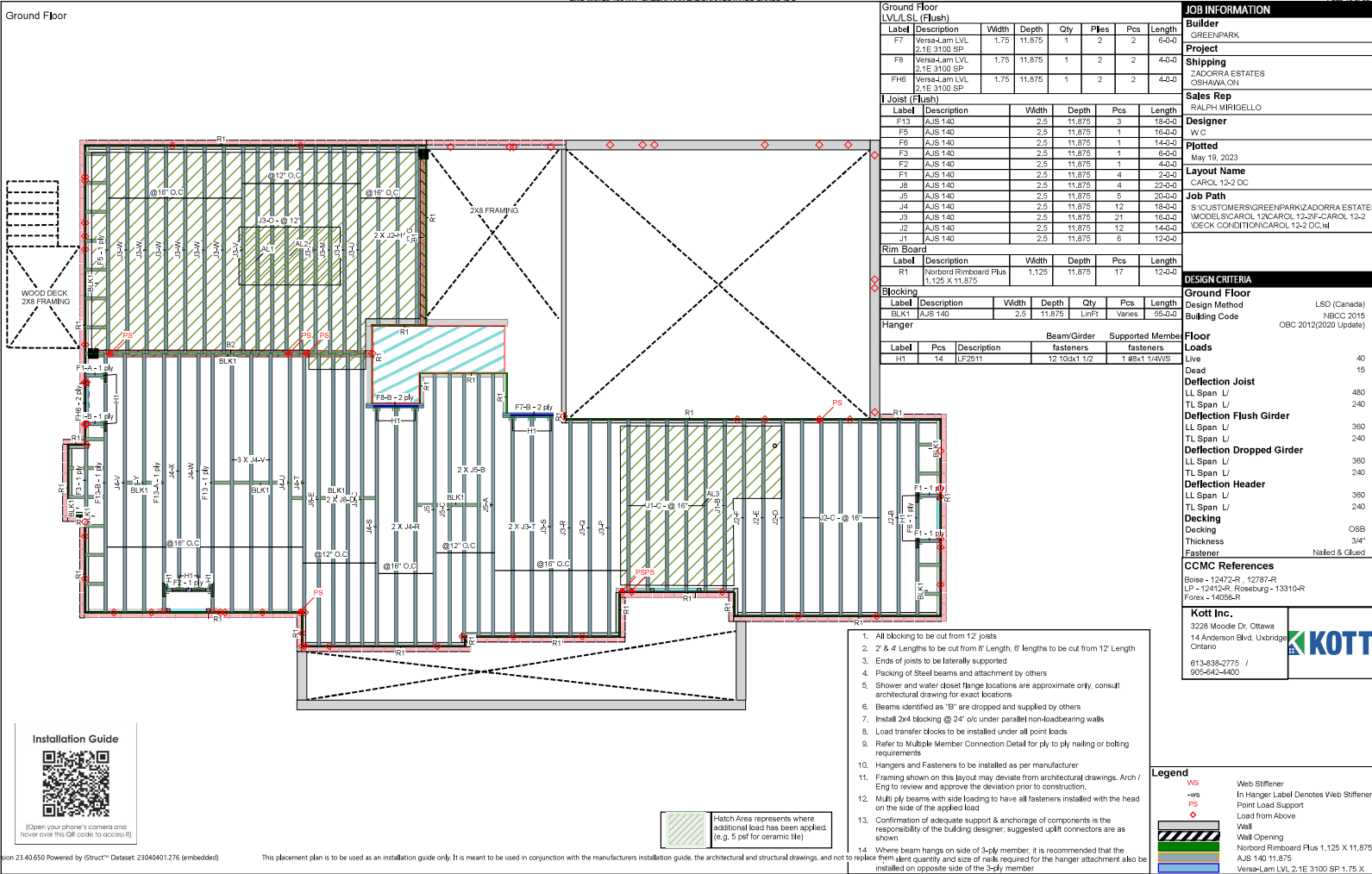


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Ground Floor

ENG-IM772-160-KTF/GREENPARK-ZADORRA ESTATES-CAROL 12-2

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## 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)

- 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 member's joint quantity and size of nails required for the hanger attachment also be installed on opposite side of the 3-ply member

## Legend

VS: Web Stiffener

-VS: In Hanger Label Denotes Web Stiffener

PS: Point Load Support

Load from Above

Will

Wall Opening

Norbord Rimboard Plus 1.125 X 11.875

AJS 140 11.875

Versa-Lam LVL 2.1E 3100 SP 1.75 X



Second 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

Second Floor							
LVL/SL (Flush)							
Label	Description	Width	Depth	Qty	Piles	Pcs	Length
F12	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	3	3	22'-0"
F11	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	16'-0"
F9	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	12'-0"
F7	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	6'-0"
F8	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	4'-0"
F10	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875			1	4'-0"
J8	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	18'-0"

Joist (Flush)							
Label	Description	Width	Depth	Pcs	Length		
J8	AJS 140	2.5	11.875	3	22'-0"		
J4	AJS 140	2.5	11.875	36	18'-0"		
J3	AJS 140	2.5	11.875	24	16'-0"		
J2	AJS 140	2.5	11.875	3	14'-0"		
J1	AJS 140	2.5	11.875	6	12'-0"		
J7	AJS 140	2.5	11.875	9	10'-0"		
J6	AJS 140	2.5	11.875	11	4'-0"		

Rim Board							
Label	Description	Width	Depth	Pcs	Length		
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875	15	12'-0"		

Blocking							
Label	Description	Width	Depth	Qty	Pcs	Length	
BLK1	AJS 140	2.5	11.875	Varies	Varies	66'-0"	

Hanger							
Label	Pcs	Description	Skew	fasteners	fasteners	Supported Member	
H1	16	LP2511	Right	12 10d	1 #8x1 1/4WS	10 16d	
H2	1	HHUS410	Right	30 16d	10 16d	10 16d	
H3	1	HGUS5.50/10	Right	46 16d	16 16d	16 16d	
H4	1	SLR1.81/8 (Min)	Right	12 16d	2 10dx1 1/2	2 10d	
H5	2	LP3511	Left	12 10d	2 #8x1 1/4WS	2 10d	
H7	1	SUL1.81/8 (Min)	Left	12 16d	2 10d	2 10d	

JOB INFORMATION	
Builder	GREENPARK
Project	ZADORRA ESTATES OSHAWA, ON
Sales Rep	RALPH MIRIGELLO
Designer	W.C.
Plotted	May 19, 2023
Layout Name	CAROL 12-2 ALL OPTIONS
Job Path	8:\CUSTOMER\GREENPARK\ZADORRA ESTATES MODEL\B\CAROL 12\CAROL 12-2P-CAROL 12-2 V\CAROL 12-2 STD.in

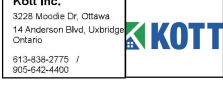
DESIGN CRITERIA	
Second Floor	LSD (Canada)
Design Method	NBCC 2015
Building Code	OSBC 2012(2020 Update)

Floor Loads	
Live	40
Dead	15
Deflection Joist	
LL Span / L	480
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	
Base	12x12-R, 12x16-R
LP	12x12-R, Roseburg - 13310-R
Forex	14056-R

<b>Kott Inc.</b> 3228 Moodie Dr, Ottawa 14 Anderson Blvd, Uxbridge Ontario	
813-836-2775 / 905-642-4400	



	Hatch Area represents where additional load has been applied. (e.g. 5 psf for ceramic tile)
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Legend	
WS	Web Stiffener
WS	In Hanger Label Denotes Web Stiffener
PS	Point Load Support
PS	Load from Above
WS	Wall
WS	Wall Opening
WS	Norbord Rimboard Plus 1.125 X 11.875
WS	AJS 140 11.875
WS	Versa-Lam LVL 2.1E 3100 SP 1.75 X