

Engineering Notes: EWP-Floors



MHP 23028



PLEASE READ AND FOLLOW INSTRUCTIONS 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

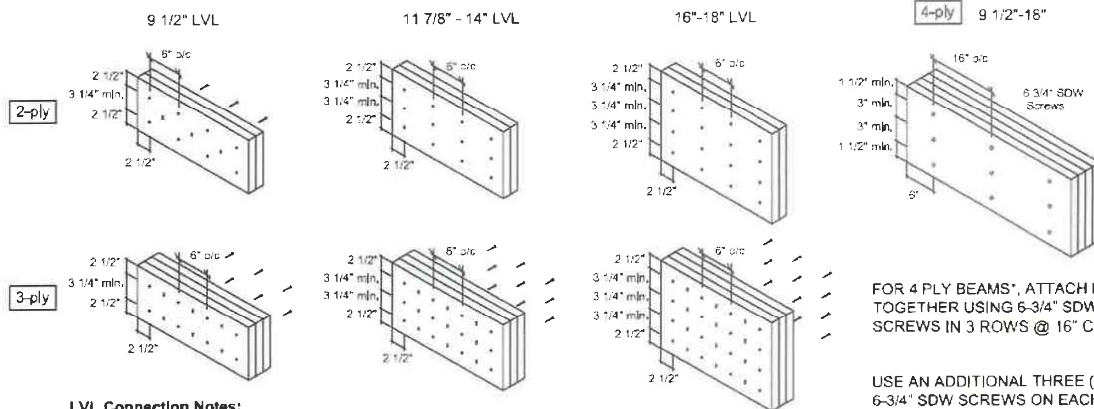
1. DO NOT DRILL ANY HOLE, CUT OR NOTCH A CERTIFIED BUILDING COMPONENT WITHOUT A WRITTEN PRE-AUTHORIZATION.
2. INSTALLATION AND ASSEMBLY OF FLOOR JOISTS AND LVL BEAMS IS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUFACTURER'S LITERATURE.



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 PLIES 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

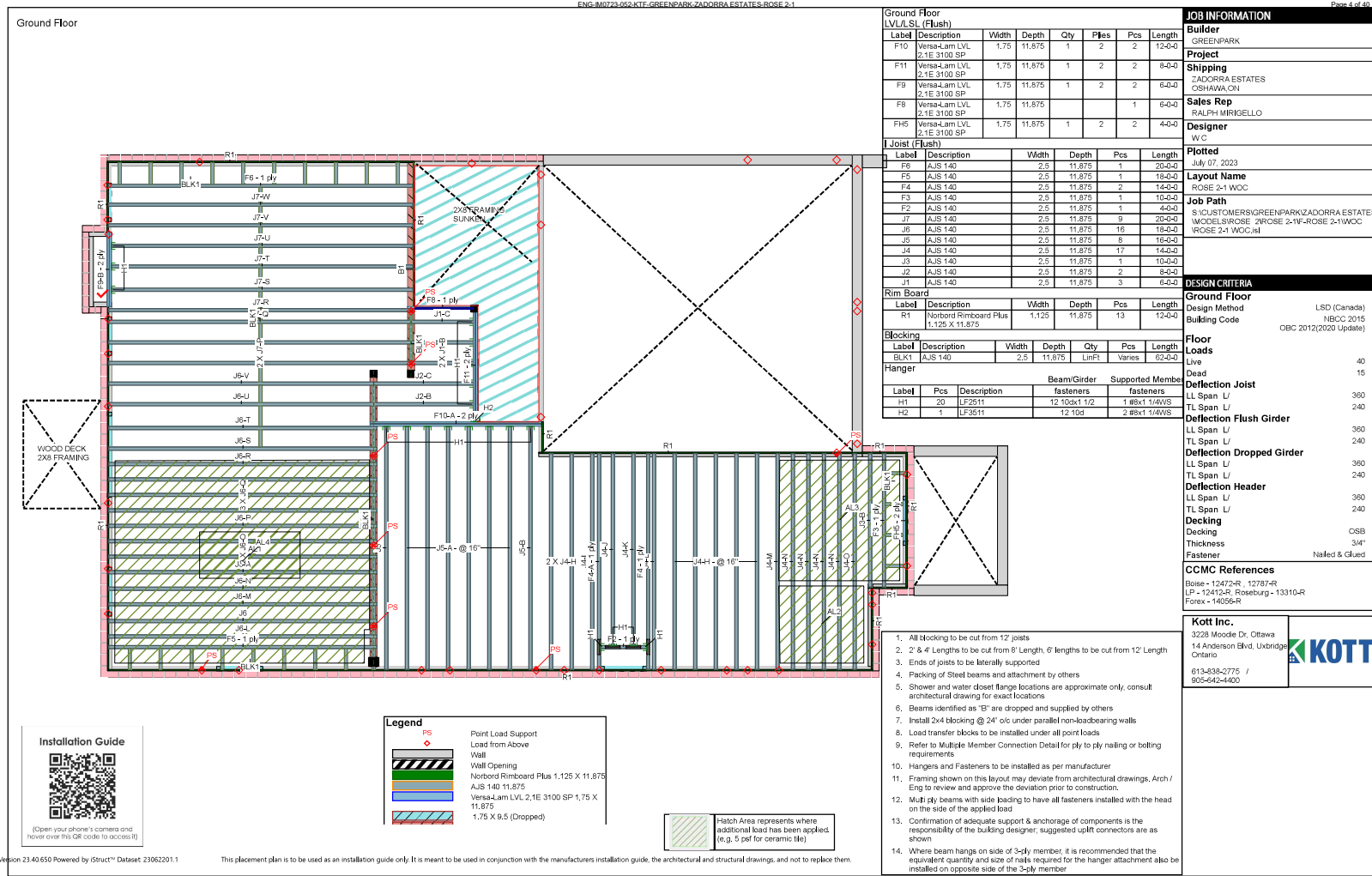
FOR MULTIPLE MEMBER CONNECTION OF BOISE ALLJOISTS REFER TO THE BOISE CASCADE INSTALLATION GUIDE

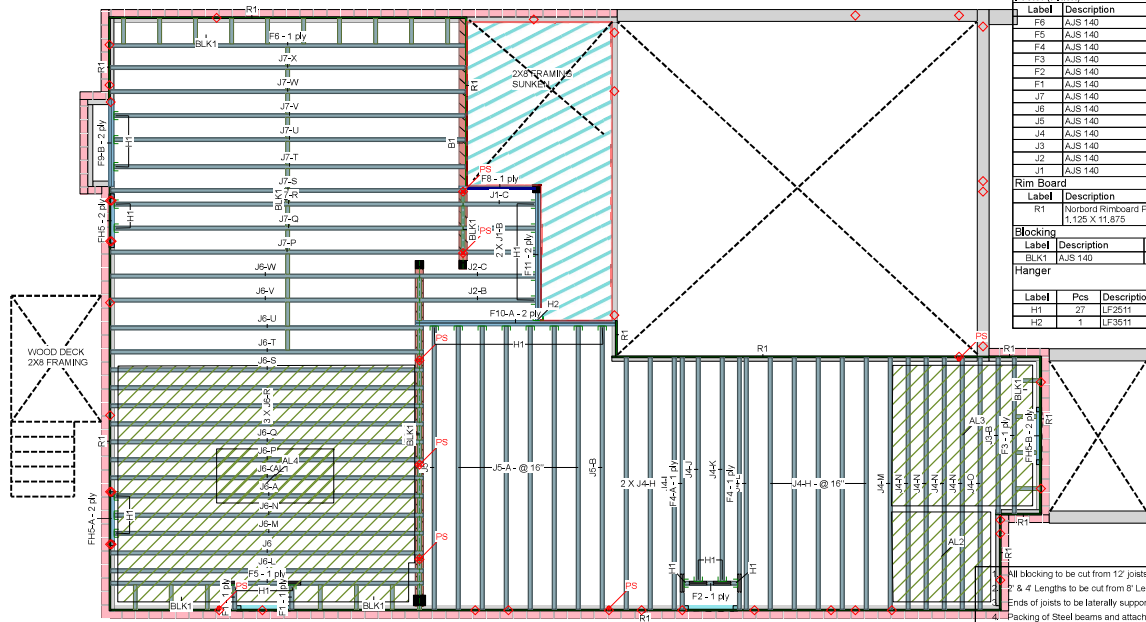
Installation Guide



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

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 15 2023
PER: *C. M...*
CHIEF BUILDING OFFICIAL





Ground Floor								JOB INFORMATION	
LVLS SL (Flush)								Builder	
Label	Description	Width	Depth	Qty	Files	Pos	Length	GREENPARK	
F10	Versalum LVL 2-1E 3100 SP	1.75	11.675	1	2	2	12-04	Project	
F11	Versalum LVL 2-1E 3100 SP	1.75	11.675	1	2	2	8-05	Shipping	
F9	Versalum LVL 2-1E 3100 SP	1.75	11.675	1	2	2	6-04	TADORA ESTATES COWAN, CH	
F8	Versalum LVL 2-1E 3100 SP	1.75	11.675	1	2	2	6-04	Sales Rep	
F5	Versalum LVL 2-1E 3100 SP	1.75	11.675	3	2	6	4-04	RALPH MIRIOELLO Designer	

Joint (Flush)						Plotted July 07, 2023
Label	Description	Width	Depth	Pcs	Length	
P1	AS 140	2.5	11.875	1	20-04	Layout Name ROSE 2-1 DC
P5	AS 140	2.5	11.875	1	19-04	
F4	AS 140	2.5	11.875	2	14-04	
F3	AS 140	2.5	11.875	1	10-04	
P2	AS 140	2.5	11.875	2	14-04	Job Path C:\CUSTOMERS\GREENPARK\ZODORA ESSEX MOBILE\ROSE 2-1\ROSE 2-1 DC\ROSE 2-1 DC.dwg
F1	AS 140	2.5	11.875	2	20-04	
J7	AS 140	2.5	11.875	8	20-04	
J6	AS 140	2.5	11.875	10	16-04	
J5	AS 140	2.5	11.875	6	16-04	DESIGN CRITERIA
J4	AS 140	2.5	11.875	17	14-04	
J3	AS 140	2.5	11.875	1	10-04	
J2	AS 140	2.5	11.875	1	10-04	




J1	AJS 140	2.5	11.875	3	6-0-0
Rim Board					
Label	Description	Width	Depth	Pcs	Length
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875	13	12-0-0

Blocking							Floor Loads
Label	Description	Width	Depth	Qty	Pcs	Length	
BLK1	AJS 140	2.5	11.875	LinFt	Varies	59-0-0	Live Dead

Hanger					Dead	15
Beam/Girder					Supported Member	Deflection Joist
Label	Pcs	Description	fasteners	fasteners	LL Span L/	360
H1	27	LF2511	12 10dx1 1/2	1 #8x1 1/4WS	TL Span L/	240
H2	1	LF3511	12 10d	2 #8x1 1/4WS	Deflection Flush Girder	

TL Span	1/	360
LL Span	1/	240
Deflection Dropped Girder		
TL Span	1/	360
LL Span	1/	240
Deflection Header		
TL Span	1/	360
LL Span	1/	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
---------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------

<p>All blocking to be cut from 12" joists</p> <p>2" & 4" Lengths to be cut from 8" Length, 6" lengths to be cut from 12" Length</p> <p>Ends of joists to be laterally supported</p> <p>Packing of Steel beams and attachment by others</p>	<table border="1"> <tr> <td data-bbox="1344 1312 1461 1320"> <p>Kott Inc.</p> <p>3228 Moode Dr. Ottawa</p> <p>14 Anderson Blvd, Uxbridge</p> <p>Ontario</p> <p>613-838-2775 /</p> <p>905-642-4400</p> </td><td data-bbox="1461 1312 1539 1320">  </td></tr> </table>	<p>Kott Inc.</p> <p>3228 Moode Dr. Ottawa</p> <p>14 Anderson Blvd, Uxbridge</p> <p>Ontario</p> <p>613-838-2775 /</p> <p>905-642-4400</p>	
<p>Kott Inc.</p> <p>3228 Moode Dr. Ottawa</p> <p>14 Anderson Blvd, Uxbridge</p> <p>Ontario</p> <p>613-838-2775 /</p> <p>905-642-4400</p>			











(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 hilling to be cut from 12" joists
2. 2" & 4" lengths to be cut from 6" length, 6" lengths to be cut from 12" length. Ends of joists to be laterally supported
3. Packing of Steel beams and attachment by others
4. Shown and water tested (bearing locations are approximate only; consult architectural drawing for exact locations)
5. Beams specified as "18" deep and supplied by others
7. Install 2x4 blocking @ 24" on end 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 in this section may deviate from architectural drawings. Arch Engr review and approve the deviation prior to construction.
12. Multi ply beams with side loading to have all fasteners installed within the beam 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 hangers on side of 3-ply member, it is recommended that the equivalent hanger be used on the opposite side of the hanger attachment
15. Hanger to be installed on opposite side of the 3-ply member

Legend

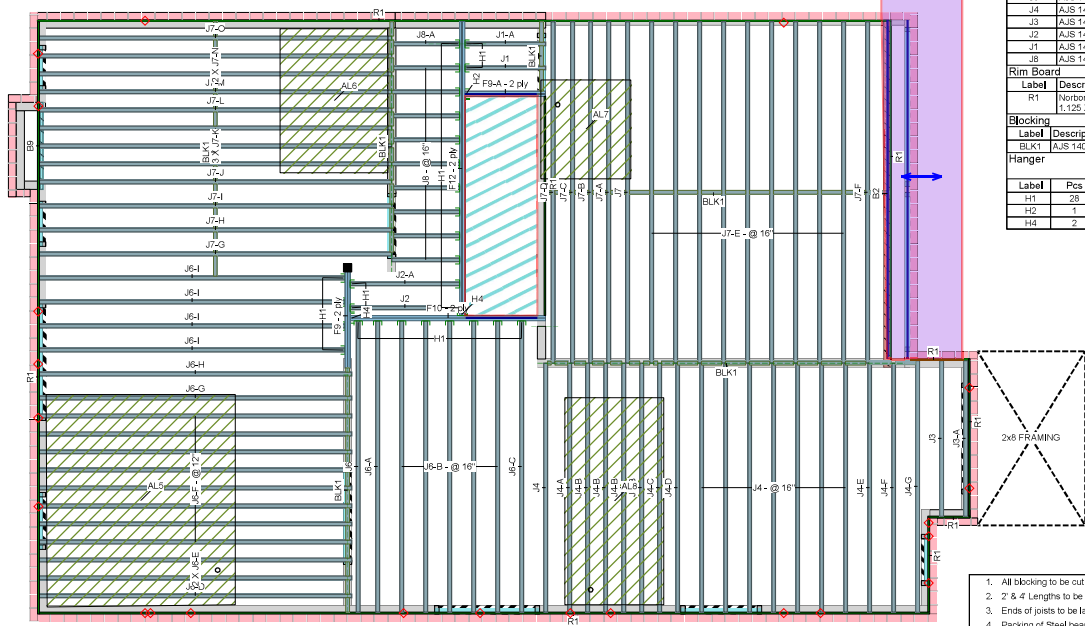
	Point Load Support
	Load from Above
	Well
	Well Opening
	Norbord Rimboard Plus 1.125 X 11.875
	AJS 140 11.875
	Versa-Lam LVL 2.1E 3100 SP 1.75 X 11.875
	1.75 X 9.5 (Dropped)

CORPORATION OF THE CITY OF OSHAWA
TRUE COPY
OF PERMIT PLANS
Nov 15 2023
PER: *C. M...*
CHIEF BUILDING OFFICIAL

ENG-M0723-052-KT2-GREENPARK-ZADORRA ESTATES-ROSE 2-1

Page 13 of 40

Second Floor



Second Floor							
LVL/LSL (Flush)							
Label	Description	Width	Depth	Qty	Pies	Pcs	Len
F12	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	18'-0"
F10	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	1	2	2	12'-0"
F9	Versa-Lam LVL 2.1E 3100 SP	1.75	11.875	2	2	4	6'-0"
Joist (Flush)							
Label	Description	Width	Depth	Pcs	Length		
J7	AJS 140	2.5	11.875	27	20'-0"		
J6	AJS 140	2.5	11.875	25	18'-0"		
J4	AJS 140	2.5	11.875	18	14'-0"		
J3	AJS 140	2.5	11.875	2	10'-0"		
J2	AJS 140	2.5	11.875	2	8'-0"		
J1	AJS 140	2.5	11.875	2	6'-0"		
J8	AJS 140	2.5	11.875	10	4'-0"		
Rim Board							
Label	Description	Width	Depth	Pcs	Length		
R1	Norbord Rimboard Plus 1.125 X 11.875	1.125	11.875	16	12'-0"		
Blocking							
Label	Description	Width	Depth	Qty	Pcs	Length	
BLK1	AJS 140	2.5	11.875	LINFT	Varies	68'-0"	
Hanger							
				Beam/Girder		Supported Member	
Label	Pcs	Description	fasteners	fasteners			
H1	26	LP2611	12 10d	1 #6x1 1/4WS			
H2	1	LP3511	12 10d	2 #6x1 1/4WS			
H4	2	H4J35410	30 16d	10 16d			

JOB INFORMATION	
Builder	GREENPARK
Project	ZADORRA ESTATES OSHAWA, ON
Shipping	
Sales Rep	RALPH MIRIGELLO
Designer	W.C.
Plotted	July 07, 2023
Layout Name	ROSE 2-1 ALL OPT
Job Path	8:\CUSTOMERS\GREENPARK\ZADORRA ESTATES\MODELS\ROSE 2\ROSE 2-1W-ROSE 2-1W\ROSE 2-1 STD.rvt

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

Floor Loads	
Live	40
Dead	15
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	
Thickness	5/8"
Fastener	Nailed & Glued

CCMC References	
Boise - 12472-R, 12787-R	
LP - 12412-R, Roseburg - 13310-R	
Forex - 14035-R	

Kott Inc.	
3228 Woodle Dr. Ottawa	
14 Anderson Blvd. Unbridge	
Ontario	
613-838-2775 /	
905-642-4400	



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

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

Installation Guide



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

Legend	
PS	Point Load Support
Load from Above	
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 11.875	
1.75 X 9.5 (Dropped)	