

Installing RFPI®-Joists for Floor Systems

- Before laying out floor system components, verify that I-joist flange widths match hanger widths. If not, contact your supplier. 2. Except for cutting to length, never cut, drill, or notch I-joist flanges 3. RFPI-Joists are produced without camber so either flange can be the top or ottom flange; however, orienting the floor I-joists so the pre-scored kr are on the bottom may ease installation of electrical wiring or residential sprinkler 4. Install I-joists so that top and bottom flanges are within 1/2-inch of true vertical alignment. I-joists must be anchored securely to supports before floor sheathing is attached. and supports for multiple-span joists must be level.
- 6. Minimum bearing lengths: 1-3/4 inches for end bearings and 3-1/2 inches for intermediate bearings 7. When using hangers, seat I-joists firmly in hanger bottoms to minimize settlement.
- 8. Leave a 1/16-inch gap between the I-joist end and a header. 9. Concentrated loads greater than those that can normally be expected in residentia onstruction should only be applied to the top surface of the top flange. Normal concentrated loads include track lighting fixtures, audio equipment and security cameras. Never suspend unusual or heavy loads from the l-joist's bottom flange Whenever possible, suspend all concentrated loads from the top of the I-joist. Or attach the load to blocking that has been securely fastened to the I-joist web. 10. Never install I-joists where they will be permanently exposed to weather or where
- they will remain in direct contact with concrete or masonry 11. Restrain ends of floor joists to prevent rollover. Use RigidRim® Rimboard, rim joists or I-joist blocking panels. 12. For I-joists installed over and beneath bearing walls, use full depth blocking panels, RigidRim[®] Rimboard, or squash blocks (cripple members) to transfer gravity loads
- through the floor system to the wall or foundation below. Due to shrinkage, common framing lumber set on edge cannot be used as blocking or rimboards. I-joist blocking panels or other engineered wood products - such as RigidRim[®] Rimboard - must be cut to fit between the I-joists, and an -joist-compatible depth selected.
- 14. Provide permanent lateral support of the bottom flange of all I-joists at interior supports of multiple-span joists. Similarly, support the bottom flange of all antilevered I-joists at the end support next to the cantilever extension. In the completed structure, the gypsum wallboard ceiling provides this lateral support Until the final finished ceiling is applied, temporary bracing or struts must be used.
- 15. If square-edge panels are used, edges must be supported between I-joists with 2x4 blocking. Glue panels to blocking to minimize squeaks. Blocking is not required under structural finish flooring, such as wood strip flooring, or if a separate underlayment layer is installed 16. See table at right for recommended sheathing attachment with nails. If sheathing
- is to be attached with screws, the screw size should be equal to or only slightly arger than the recommended nail size. Space the screws the same as the required nail spacing. The unthreaded shank of the screw should extend beyond the thickness of the panel to assure that the panel is pulled securely against the l-joist flange. Use screws intended for structural assembly of wood structures. s recommended to use screws from a manufacturer that can provide an ICC-ES Report (or similar) with approved application specifications and design values. Drywall screws can be brittle and should not be used.
- 17. Nail spacing & guidelines Attach sheathing to RFPI-Joist in accordance with applicable building code or
- approved building plan. However, do not use nails larger or spaced closer than shown in the table at right. b. If more than one row of nails is required, rows must be offset by at least 1/2"
- and staggered. c. 14 gauge staples may be substituted for 8d (2-1/2") nails if staples penetrate
- the joist at least 1' d. 10d (3") box nails may be substituted for 8d (2-1/2") common nails. e. Nails on opposing flange edges must be offset one-half the minimum spacing.

Maximum of 0.131" diameter (8d common)

members with slope

greater than 3/12

Uplift connections may be required



JHEAT	FIING NAIL SPACING - SEE						c	
		Flange Face I	Vailing (in) ^{(a)(b)}	b) Flange Edge Nailing (in)				
Flange Material	Fastener Diameter ^{(c)(d)}	End Distance	Nail Spacing	End Distance	Nailed to one flange edge	Nailed to both flange edges ^(e)	0 C	
LVL Flange I-Joist	dia. ≤ 0.128" (8d box or sinker, 10d box or sinker, 12d box)	3	2	3	3	6		
	0.128"≤ dia. ≤ 0.148" (8d com, 10d com, 12d sinker or com, 16d box or sinker)	3	3	3	3 ^(f)	6 ^(f)		
Solid Sawn	dia. ≤ 0.128" (8d box or sinker, 10d box or sinker, 12d box)	2	2	2	2	4		
Flange I-Joist	0.128" ≤ dia. ≤ 0.148" (8d com, 10d com, 12d sinker or com, 16d box or sinker)	2	3	2	3	6		

BOARD/I-JOIST BLOCKING PLF LIMITS - (DETAI	LS 1A, 1B, 1G)
uniform vertical load capacity is limited t th of 16 inches or less and is based on 10 ition. This load capacity shall not be used bending member, such as a joist, header, centrated vertical load transfer, see 1d.	00% load I in the design
cking Panel or Rimboard	Vertical Load Capacity (plf)

ing Parlel of Rimboard	Capacity (plf)			
" RigidRim [®] OSB Rimboard	4850			
" RigidRim [®] Plus OSB Rimboard	4850			
" 1.4E RigidRim [®] LVL Rimboard	4900			
Joist	2000			

RFPI[®]-Joists on



nnectors may be substituted. For

opes greater than 4/12 cor

are required to resist lateral thrus

Uplift connections may be required.



Beveled web

side

4'- 0" min

Stop RFPI[®]-Joist

Attach blockin

per 2b

Uplift connections may be required.

extend top flange with

tiffener nailed to web of joist

rows of 8d nails at 8" o.c., clinched

with 6-8d (2-1/2") nails. Extend 2x4 support

at least 4' into joist span and nail to web with 2

2x4. Support extensio

with 2x4 beveled web

Birdsmouth Cut- Low End







X-bridging or RFPI[®]-Jois

locking panels. Validate

code.







Overhang Parallel to RFPI®-Joist



RFPI® Joist Allowable Clear Spans

1.	Allowable spans shown in Table 1 and Table 2 are based on uniformly loaded I-joists with 1-3/4" end
	bearing lengths and 3-1/2" intermediate bearing
	lengths without the use of web stiffeners. When longer
	bearing lengths or web stiffeners are used, longer
	spans may be permitted. Use appropriate software
	(e.g. Simpson Strong-Tie [®] Component Solutions [™]) or
	engineering analysis for other conditions. Refer to the
	Engineered Wood section of the Roseburg website
	(www.Roseburg.com) for additional information

- 2. The allowable spans in Table 1 are for applications with a live load of 40 psf and a dead load of 10 psf. The allowable spans in Table 2 are for applications with a live load of 40 psf and a dead load of 20 ps
- 3. Deflection under live load is limited to L/480. 4. Maximum spans shown are clear distances
- between supports. 5. For multiple-span applications the end spans must be at least 40% or more of the adjacent span.
- 6. Multiple span lengths shown require the installation of adequate bottom flange lateral bracing. . Spans are based on a composite floor with glued-nailed
- sheathing meeting the requirements for APA Rated Sheathing or APA Rated STURD-I-FLOOR conforming to PRP-108, PS 1, or PS 2 with a minimum thickness of 19/32 inches (40/20 or 20 oc) for a joist spacing of 19.2 inches or less, or 23/32 (48/24 or 24 oc) for a joist spacing of 24 inches. Adhesives must meet APA Specification AFG-01 or ASTM D3498. Reduce spans
- by 1 foot when floor sheathing is nailed-only. 3. Web stiffeners are not required when RFPI®-Joists are used according to the spans and spacings found in Tables 1 & 2 except as noted in this Installation Guide 9. SI units conversion
- 1 inch = 25.4 mm 1 foot = 0.305 m

Web Stiffeners

- . Web stiffeners are required: • When sides of the hangers do not laterally brace the top flange of each I-joist. · When I-joists are designed to support concentrate factored loads greater than 1,500 lbs. applied to the I-joist's top flange between supports. In these applications only, the gap between the web stiffener and the flange shall be at the bottom flange. For Birdsmouth cuts on roof I-ioists.
- . Web stiffeners may be required per Note 1 of Tables 1 and 2. When used at end bearings, install web stiffeners tight against the bottom flange of the I-joist. Leave a minimum 1/8-inch gap between the top of
- the stiffener and the bottom of the top flange (see Figure 1). 4 Web stiffeners may be cut in the field as required

ABLE 1 - RFPI® JOIST ALLOWABLE SPANS - 40 PSF LIVE OAD/10 PSF DEAD LOAD									
							oist	Joist	40/10 Simple Span
epth	Series	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
·1/2"	RFPI® 20	17' - 2"	15' - 9"	14' - 10"	13' - 10"	18' - 9"	17' - 1"	16' - 2"	14' - 0"
	RFPI® 40S	18' - 0"	16' - 5"	15' - 6"	14' - 6"	19' - 7"	17' - 11"	16' - 4"	14' - 7"
	RFPI® 400	18' - 0"	16' - 5"	15' - 6"	14' - 6"	19' - 7"	17' - 10"	16' - 10"	15' - 9"
	RFPI [®] 40	18' - 7"	16' - 11"	16' - 0"	14' - 11"	20' - 2"	18' - 5"	17' - 5"	16' - 2"
	RFPI® 60S	18' - 11"	17' - 4"	16' - 4"	15' - 3"	20' - 8"	18' - 10"	17' - 9"	16' - 6"
	RFPI [®] 70	19' - 9"	18' - 0"	17' - 0"	15' - 10"	21' - 6"	19' - 7"	18' - 5"	17' - 2"
	RFPI [®] 90	22' - 3"	20' - 3"	19' - 0"	17' - 9"	24' - 2"	22' - 0"	20' - 8"	19' - 3"
	RFPI [®] 20	20' - 6"	18' - 9"	17' - 9"	16' - 6"	22' - 4"	20' - 5"	18' - 10"	15' - 3"
	RFPI® 40S	21' - 5"	19' - 7"	18' - 6"	16' - 8"	23' - 5"	20' - 5"	18' - 7"	16' - 7"
	RFPI® 400	21' - 5"	19' - 7"	18' - 6"	17' - 3"	23' - 4"	21' - 4"	20' - 1"	17' - 9"
-7/8"	RFPI [®] 40	22' - 1"	20' - 2"	19' - 0"	17' - 9"	24' - 1"	22' - 0"	20' - 8"	19' - 3"
	RFPI® 60S	22' - 7"	20' - 8"	19' - 6"	18' - 2"	24' - 8"	22' - 6"	21' - 2"	19' - 7"
	RFPI [®] 70	23' - 7"	21' - 6"	20' - 3"	18' - 10"	25' - 8"	23' - 5"	22' - 0"	19' - 9"
	RFPI® 80S	24'-11"	22'-8"	21'-4"	19'-11"	27'-1"	24'-8"	23'-3"	21'-7"
	RFPI [®] 90	26' - 6"	24' - 1"	22' - 8"	21' - 1"	28' - 10"	26' - 3"	24' - 8"	22' - 11"
	RFPI® 20	23' - 4"	21' - 4"	20' - 2"	18' - 6"	25' - 5"	22' - 7"	19' - 2"	15' - 3"
	RFPI® 40S	24' - 4"	22' - 3"	20' - 6"	18' - 4"	25' - 11"	22' - 5"	20' - 5"	18' - 3"
	RFPI® 400	24' - 4"	22' - 3"	21' - 0"	19' - 7"	26' - 7"	24' - 3"	22' - 3"	17' - 9"
1.47	RFPI [®] 40	25' - 2"	22' - 11"	21' - 8"	20' - 2"	27' - 5"	25' - 0"	23' - 7"	19' - 9"
14"	RFPI® 60S	25' - 9"	23' - 6"	22' - 2"	20' - 8"	28' - 0"	25' - 7"	24' - 1"	19' - 9"
	RFPI [®] 70	26' - 10"	24' - 5"	23' - 0"	21' - 5"	29' - 3"	26' - 7"	24' - 9"	19' - 9"
	RFPI® 80S	28'-3"	25'-9"	24'-3"	22'-7"	30'-9"	28'-0"	26'-4"	23'-11"
	RFPI [®] 90	30' - 1"	27' - 5"	25' - 9"	23' - 11"	32' - 10"	29' - 10"	28' - 1"	26' - 0"
	RFPI® 40S	26' - 11"	24' - 3"	22' - 1"	19' - 9"	27' - 11"	24' - 2"	22' - 0"	19' - 8"
16"	RFPI® 400	27' - 0"	24' - 8"	23' - 4"	20' - 10"	29' - 6"	26' - 4"	22' - 3"	17' - 9"
	RFPI [®] 40	27' - 10"	25' - 5"	24' - 0"	22' - 4"	30' - 4"	27' - 8"	24' - 9"	19' - 9"
	RFPI® 60S	28' - 6"	26' - 0"	24' - 7"	22' - 11"	31' - 1"	28' - 4"	24' - 9"	19' - 9"
	RFPI [®] 70	29' - 9"	27' - 1"	25' - 6"	23' - 9"	32' - 5"	29' - 6"	24' - 9"	19' - 9"

 RFPI® 80S
 31'-4"
 28'-6"
 26'-10"
 25'-0"
 34'-2"
 31'-1"
 29'-3"
 23'-11"

ABLE B: WEB STIFFENER SIZE REQUIRED

1-3/4"

2-1/16"

2-5/16"

2-1/2"

*See Table 4 for applicable joist designation.

3-1/2"

RFPI® 90 33' - 4" 30' - 4" 28' - 7" 26' - 7" 36' - 5" 33' - 1" 31' - 1" 26' - 7"

19/32" x 2-5/16" minimum width

3/4" x 2-5/16" minimum width

7/8" x 2-5/16" minimum width

1" x 2-5/16" minimum width

1-1/2" x 2-5/16" minimum width



 RFPI® 70
 29' - 9"
 27' - 1"
 24' - 10"
 19' - 10"
 32' - 5"
 24' - 9"
 20' - 7"
 16' - 5"

 RFPI® 90
 33' - 4"
 30' - 4"
 28' - 7"
 23' - 2"
 36' - 5"
 33' - 1"
 27' - 9"
 22' - 2"

 RFPI® 80S
 31'-4"
 28'-6"
 26'-6"
 21'-2"
 34'-2"
 30'-0"
 24'-11"
 19'-11"







lever nails may be used to attac

allow clinching)

loads only

(60 psf LL plus

panel closure

bearing required

3-1/2" min.

max.)

span. Longer

be acceptable as verified by appropriate software or

engineering analysis.

RigidRim[®] Rimboard, or wood

3-1/2" min.

bearing required

cker block if length of nail is sufficient

Attach RFPI[®]-Joist or RigidRim[®] Rimboard to top plate per Detail 1a

is length of cantilever



bearing length based

on plate material.

ee "Bearing Lengt

EWP Design Guide to

determine the number

support header.

of jack studs required to

and end of

RigidLam LVL beams and concr

RigidLam

LVL beams

OP LOADED MEMBERS - 4 PLY























PRODUCT & PERFORMANCE WARRANTY

Roseburg Forest Products warrants that its **RFPI[®]-Joists, RigidLam[®] laminated veneer lumber (LVL)** and **RigidRim**[®] **Rimboard** will be free from manufacturing errors and defects in workmanship and materials in accordance with our specifications.

Furthermore, we warrant that these products, when properly stored, installed and used in dry use service conditions, will meet or exceed our performance specifications for the expected life of the structure.

RFPI[®], RigidLam[®], RigidRim[®] are registered trademarks of Roseburg Forest Products, Roseburg, Oregon.



3660 Gateway St, Springfield, OR 97477 800.347.7260 | roseburg.com

Engineered **Wood Products**