

JJI-Joist Floor Details For Use In Timber Frame Construction

The following details cover the most common timber frame JJI-Joist floor applications.

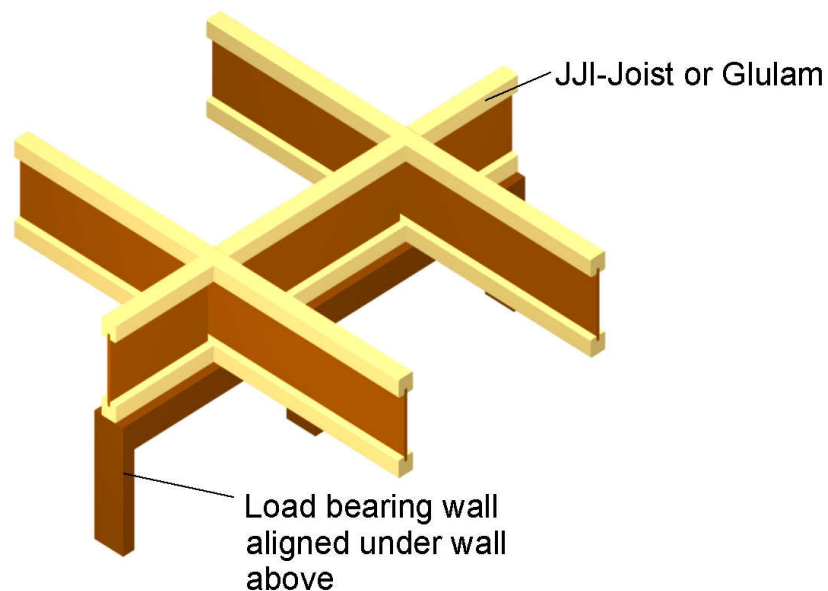
JJ&S have produced these details after careful consideration of the structural requirements and additional issues such as fire and thermal insulation.

The details are provided for use at the designer's discretion and care should be taken to ensure the correct detail is used in each application.

It should be noted that this document is not an exhaustive detailing catalogue and other equally valid details may be used, providing the timber frame kit manufacturer's Consulting Engineer can demonstrate that they meet the appropriate requirements.

Intermediate Bearing With Load Bearing Wall Above

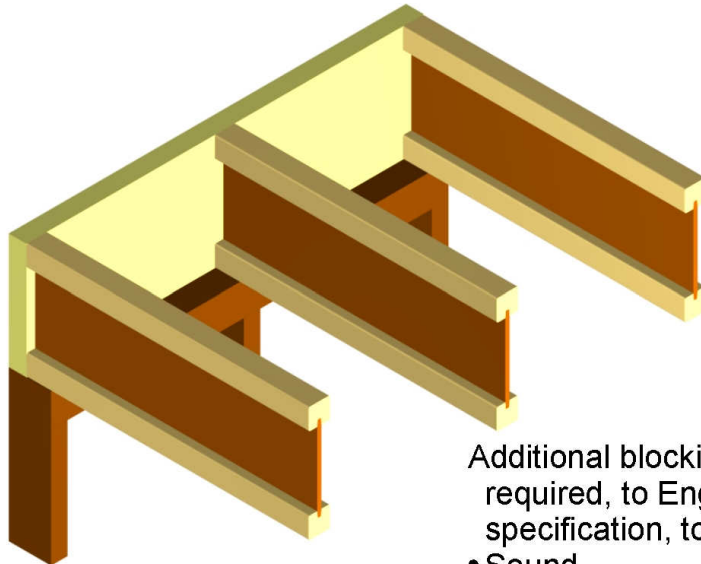
F5



• Refer to F detail notes – timber frame

Joists Bearing On External Wall

F11



Additional blocking may be required, to Engineer's specification, to improve:

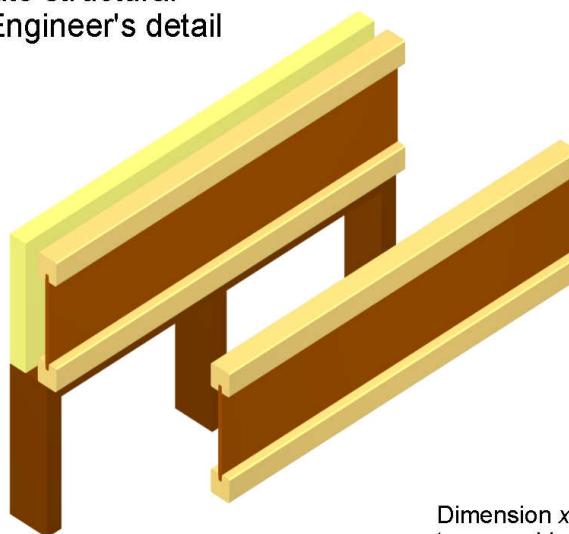
- Sound
- Structural Performance
- Fixing

• Refer to F detail notes – timber frame

Joists Parallel To External Wall

F36

Additional blocking may be required to provide adequate structural performance, to Engineer's detail



Dimension x not to exceed half the flange width

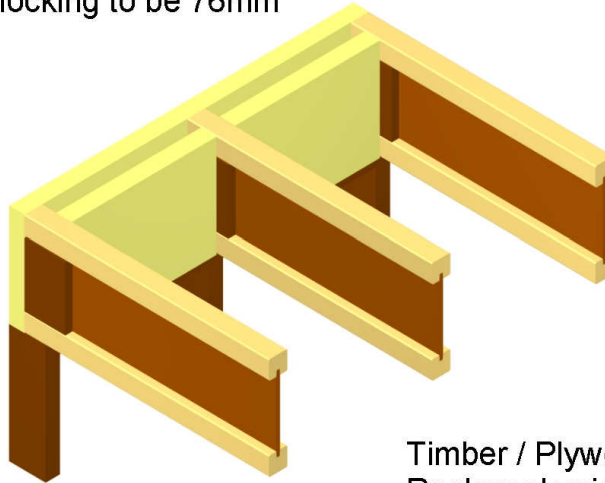


• Refer to F detail notes- timber frame

Joists Bearing On Party Wall

F32

Overall minimum thickness of solid rimboard and blocking to be 76mm



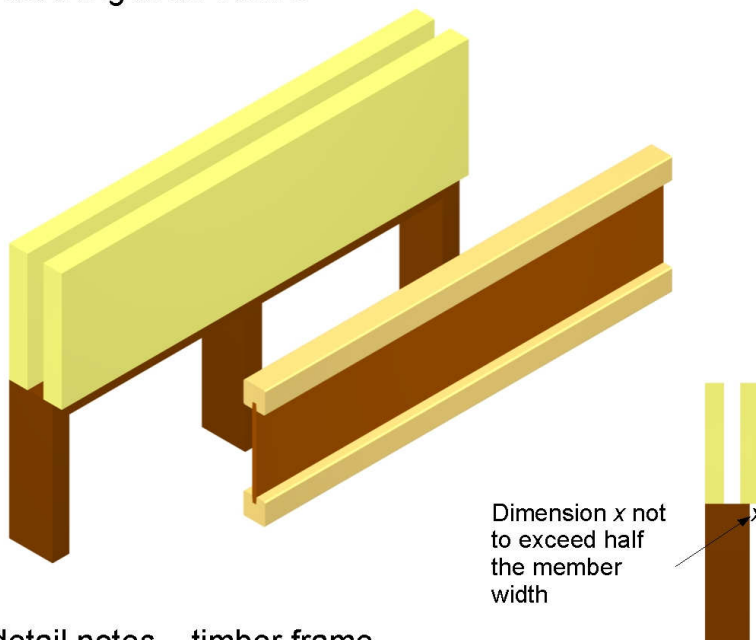
Timber / Plywood /
Rockwool void fillers

- Refer to F detail notes – timber frame

Joists Parallel To Party Wall

F33

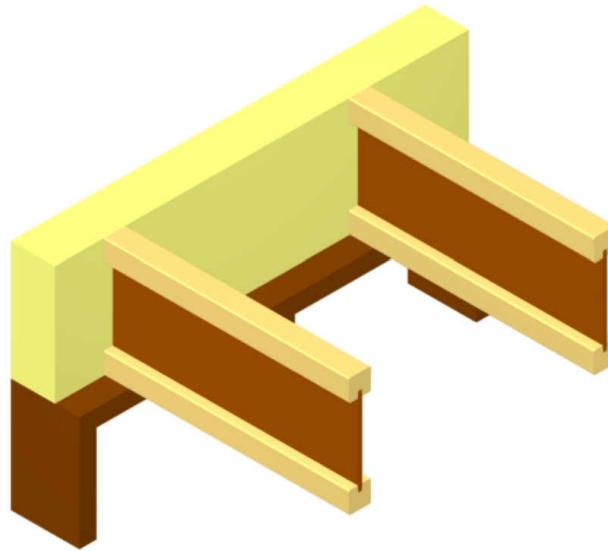
Overall minimum thickness of solid rimboard and blocking to be 76mm



- Refer to F detail notes – timber frame

Indicative Dis. Collapse Joists At 90° Wall

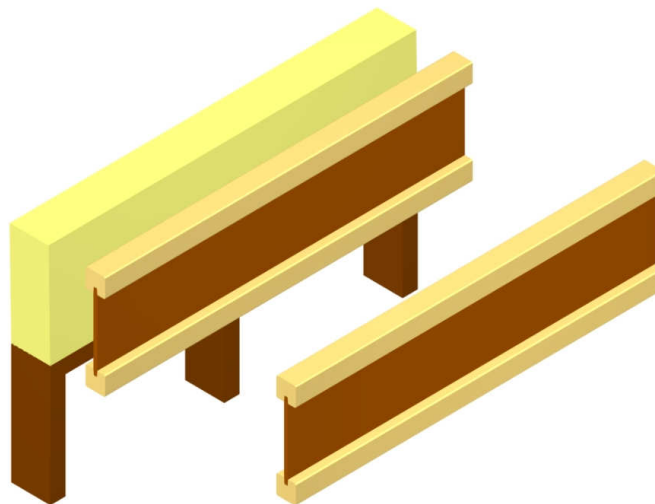
F34



• Specification to Engineer's detail

Indicative Dis. Collapse Joists Parallel To Wall

F35



• Specification to Engineer's detail

Notes:

1. Refer to table 1 for rimboard crushing capacity
2. Rimboard thickness to timber frame kit manufacturer's Consulting Engineer's specification / approval
3. Rimboard fixed to bearing with 3.35 x 65mm nails at 150mm c/c
4. Secure rimboard to JJI-Joist with 2 no. x 3.35 x 65mm ring shank nails, one each to top and bottom flanges
5. Fix JJI-Joist to bearing with 2 no. x 3.35 x 65mm nails, 40mm from joist end
6. Minimum joist bearing length 45mm

Table 1

JJI-Joist Depth ⁽¹⁾	Maximum long-term load per metre run (kN/m) ⁽²⁾	Maximum single point load (kN) ⁽³⁾
195	25	12
220	20	
235	20	
245	19	
300	17	10
350	15	
400	13	8
450	12	
JJ-Glulam Width (mm) ⁽⁴⁾		
38	53	32
45	63	38

- (1) Loads figures established by test
- (2) JJI-Joist maximum long-term loads as defined in BS5268; these can be modified by k_3 , see BS5268: Part 2 (k_3 1.25 Medium Term, 1.5 Short Term). JJ-Glulam maximum, medium term actions ($k_{mod} = 0.8$) as defined in EC5; These can be modified by k_{mod} , see EC5.
- (3) Where a single point load exceeds the tabulated value, either provide squash blocks as Detail F23 of the Technical Manual, or provide additional solid blocking.
- (4) Load figures established by calculation.

When specifying rim materials, the Building Designer/Engineer needs to decide if the applied loads are to act as a uniformly distributed load, or a series of point loads.

The overall responsibility of the rim specification is the responsibility of the timber frame kit manufacture's Consulting Engineer.