

INTRODUCTION

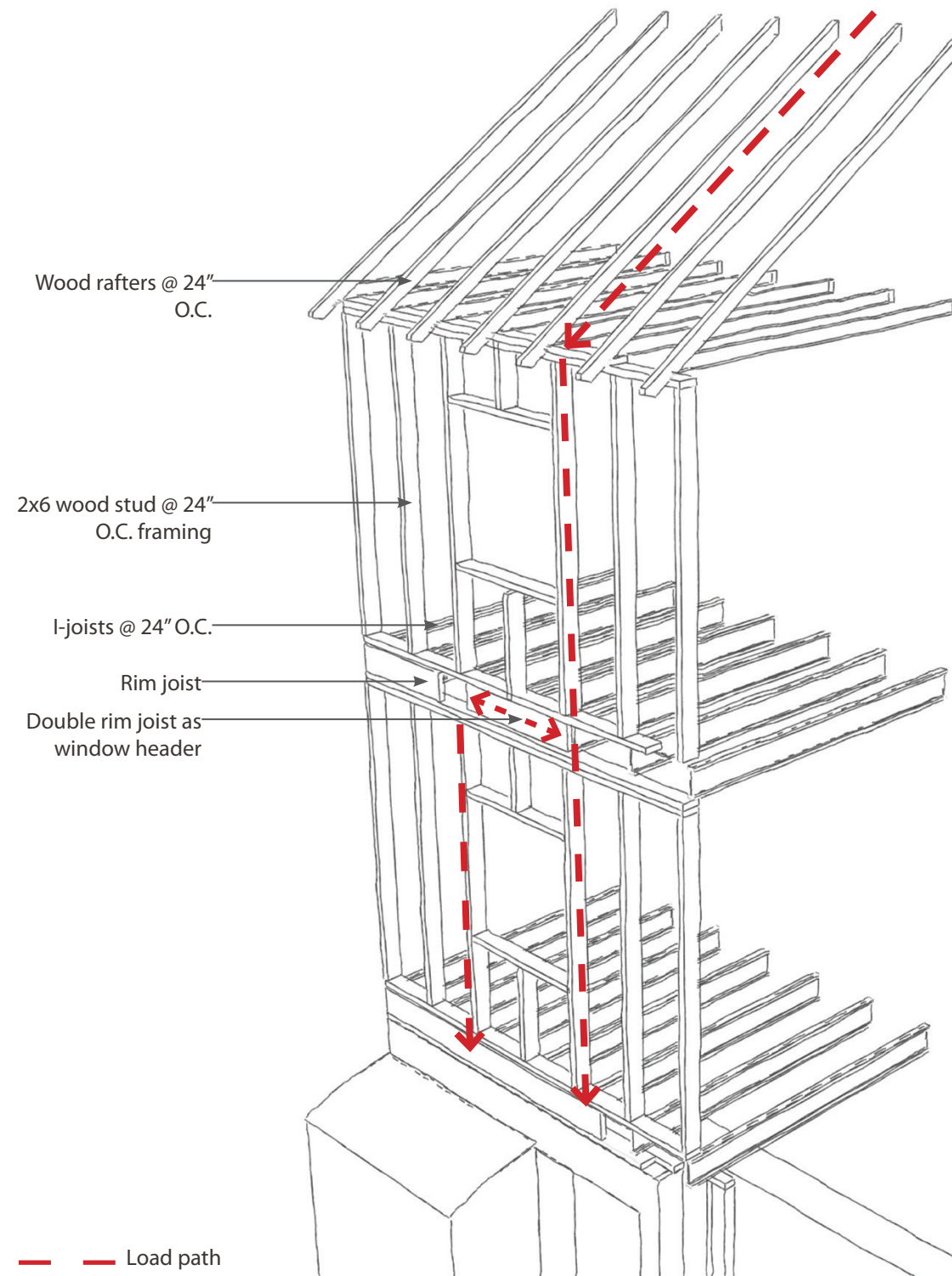
Advanced Framing:

The basis for successful advanced framing lies in placing wall studs at 24" on-center rather than the traditional 16" on-center, and the elimination of unnecessary or redundant structural and non-structural framing members. Done correctly, advanced framing can be structurally superior to standard framing, reduce materials and cost, and provide more space for insulation.

24" On-Center Framing and Direct-Load-Path:

According to the International Residential Code (IRC), 2 x 6 wall framing spaced at 24" on-center can be used to support one floor and one roof. Therefore 24" on-center framing is prescriptively acceptable for the first-floor load-bearing walls in a two-story home, and by extension, the remainder of the first and second floor walls as well. The key to its' structural success starts with a concept called "direct-load-path" or "stacked framing". With direct-load-path, the roof trusses (or rafters) align directly over the second floor wall studs, which align with the floor joists, which align with the first floor studs. In this manner all vertical gravity loads are communicated directly down to the foundation, and inefficient horizontal offsets are eliminated. In high-seismic wind load regions this allows the vertical members to be directly connected to more efficiently distribute the forces encountered.

IN-LINE FRAMING : DIRECT LOAD PATH



FIELD EXAMPLES



In-line open web floor joists and wall studs @ 24" O.C. framing



In-line trusses and wall studs @ 24" O.C. framing



In-line rafters and wall studs @ 24" O.C. with cavity insulation