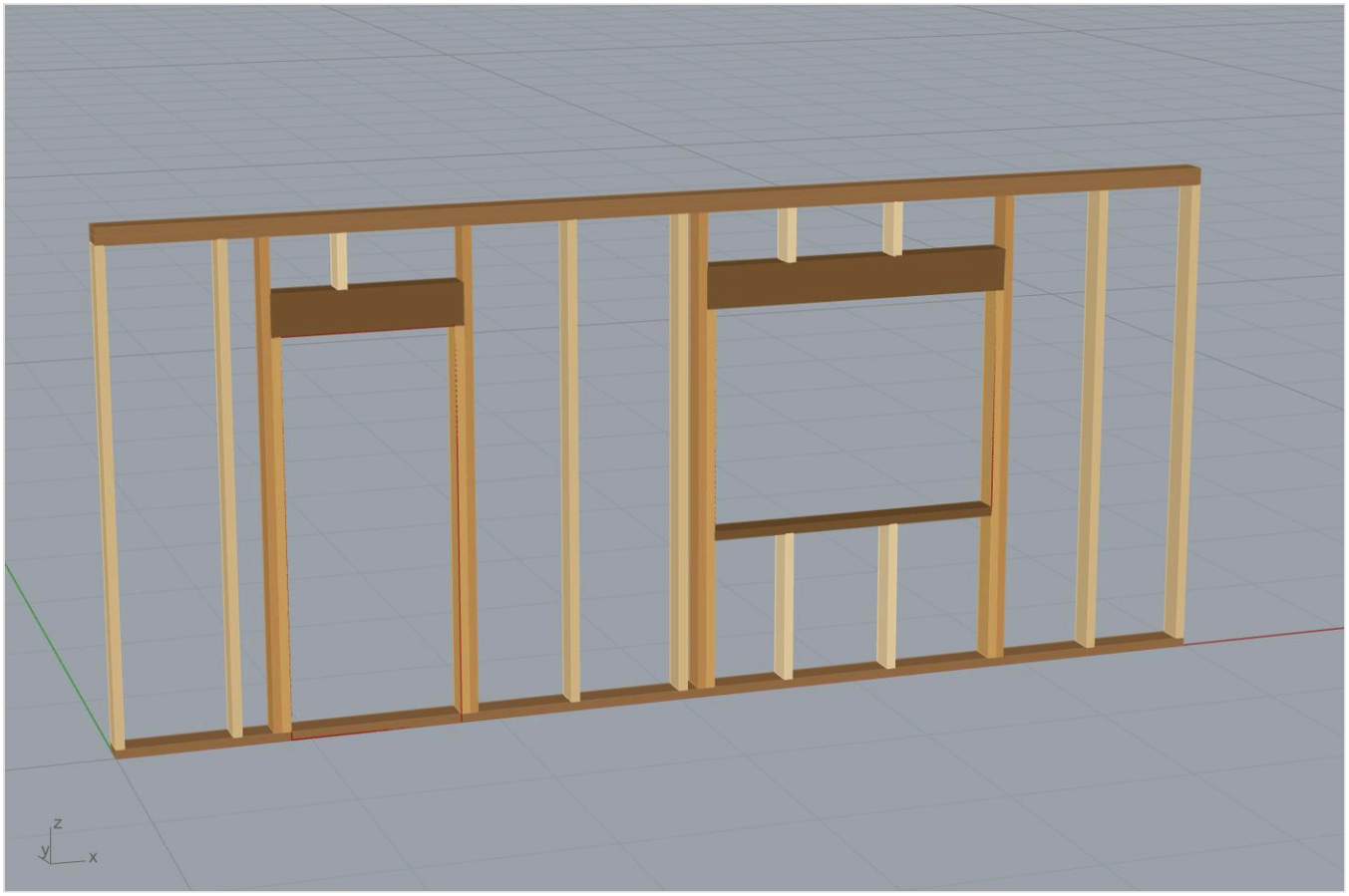
STRUCTURE

TIMBER STUD WALL

Platform framing of a wall with openings and cutting list



FREE | RHINO 7 · RHINO 8 | NATIVE COMPONENTS ONLY | VERSION 1.0 · NOVEMBER 2026

Draw the openings as rectangles on the wall face and the definition frames the wall: bottom plate, double top plate, studs on spacing, king and jack studs, headers, sills and cripples. The cutting list gives pieces and lengths for each member type and the total volume.

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HOW TO USE

1. Open the file: a 6 m wall with a door and a window appears.
2. Draw your openings as rectangles in the XZ plane (the wall face), then right-click 'Openings' > Set Multiple Curves.
3. Set wall length and height, stud spacing and section.
4. Set the header depth.
5. Read 'Cutting list' and 'Total', then bake each '(all)' group.

BAKE

(all) groups

GOOD TO KNOW

- An opening that starts at floor level is a door: no sill, and the bottom plate runs through it (cut it on site).
- A layout study with common platform-framing members, not a structural design: check sections with your engineer.

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INPUTS

PARAMETER	RANGE	DEFAULT
Wall length (m)	1.00 – 15.00	6.00
Wall height (m)	2.00 – 4.00	2.70
Stud spacing (m)	0.300 – 0.800	0.600
Stud width (m)	0.035 – 0.100	0.045
Stud depth (m)	0.070 – 0.300	0.145
Header depth (m)	0.100 – 0.500	0.220

GEOMETRY YOU CAN REPLACE

Openings (rectangles in the XZ wall plane) · Curve

RESULTS AT DEFAULT VALUES

CUTTING LIST

```
Bottom plate: 1 pcs, 6.00 m
Top plates: 2 pcs, 12.00 m
Studs: 6 pcs, 15.39 m
King studs: 4 pcs, 10.26 m
Jack studs: 4 pcs, 8.22 m
Headers: 2 pcs, 2.68 m
Sills: 1 pcs, 1.60 m
Cripples: 5 pcs, 2.49 m
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TOTAL

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Total: 58.64 m of 45x145 mm = 0.383 m3
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INSIDE THE DEFINITION

STAGES, LEFT TO RIGHT AND TOP TO BOTTOM

1 INPUT openings in the XZ plane

2 OPENINGS bounds of each rectangle

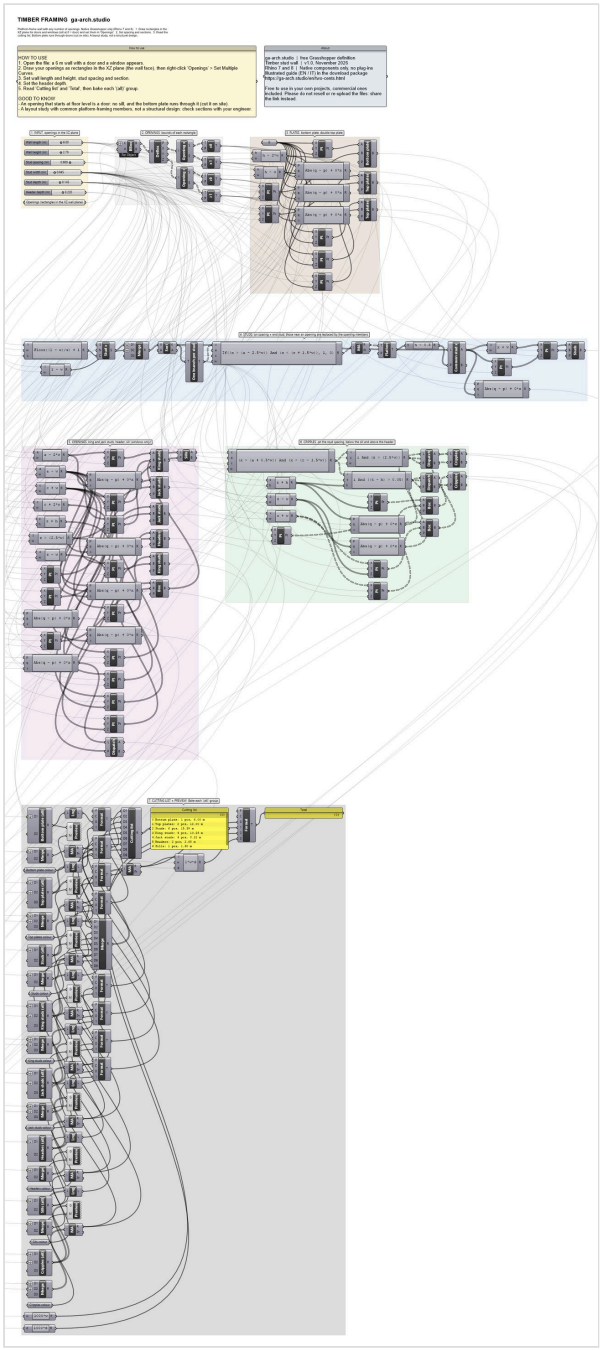
3 PLATES bottom plate, double top plate

4 STUDS on spacing + end stud; those near an opening are replaced by the opening members

5 OPENINGS king and jack studs, header, sill (windows only)

6 CRIPPLES on the stud spacing, below the sill and above the header

7 CUTTING LIST + PREVIEW Bake each '(all)' group



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