



Residential Fire-Resistant Construction

Bulletin 27

Division of Building, Safety, and Inspection for 2018 International Codes

The purpose of this bulletin is to show how and where fire-resistant construction is required in residential buildings. Fire setbacks can be reduced with sprinklers but may be prohibited under other division's codes. Please submit a request for a Submittal Standard (Bulletin 72) to confirm.

Residences without Fire Sprinkler System, Table R302.1(1)

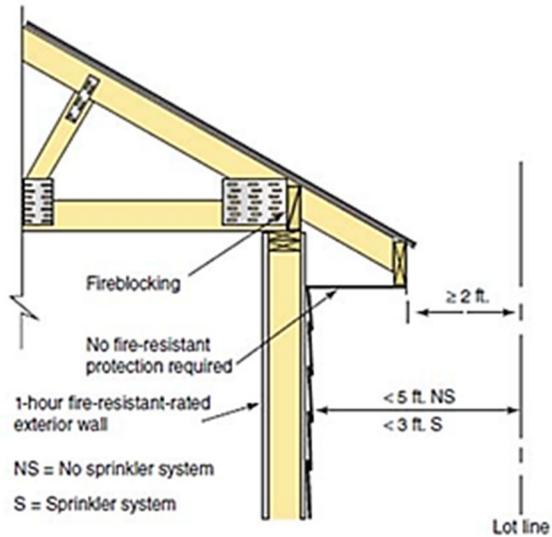
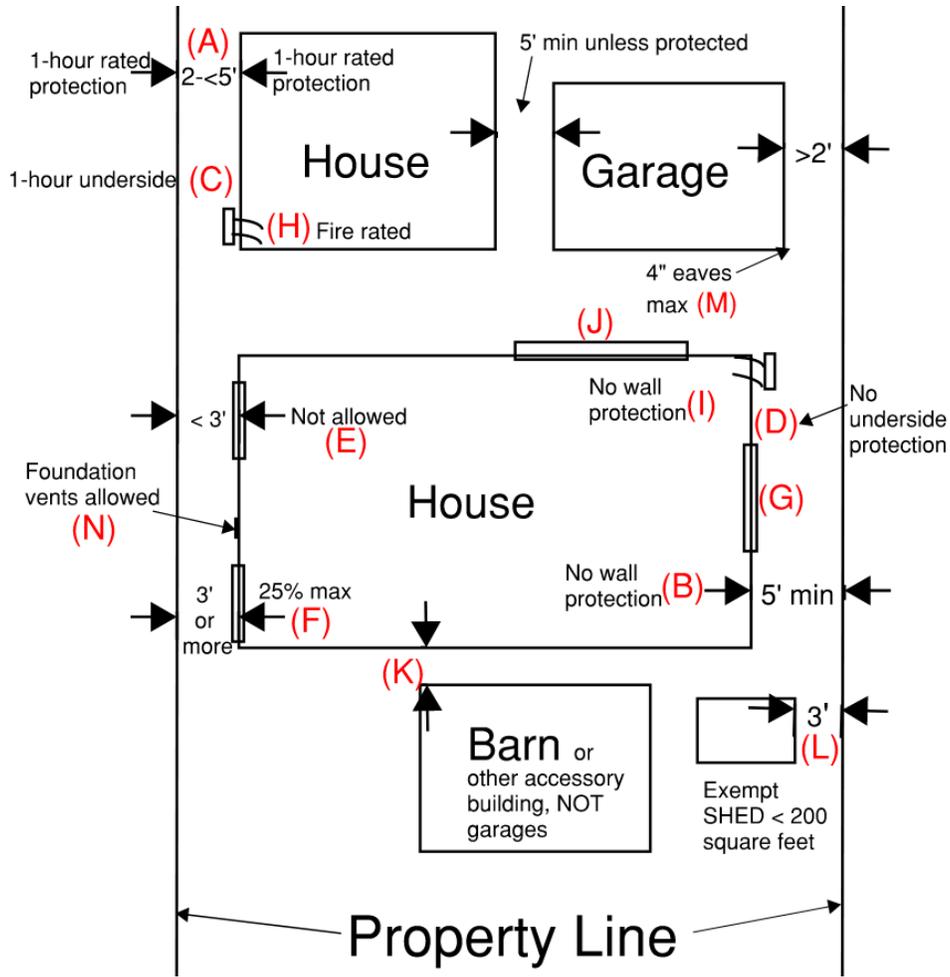
Exterior Wall Element		Minimum Fire-Resistance Rating	Minimum Fire Separation Distance
Walls	(Fire-resistance rated)	1-hour (rated) tested to ASTM E 119 or UL 263 with exposure from both sides	< 5 feet (A)
	(Not fire-resistance rated)	0 hours/no protection required	≥ 5 feet (B)
Projections (eaves, overhangs)	(Fire-resistance rated)	1 hour on the underside ^{a, b}	≥ 2 feet to 5 feet (C)
	(Not fire-resistance rated)	0 hours/no protection required	5 feet (D)
Openings in Walls (windows, doors)	Not allowed	N/A	< 3 feet (E)
	25% maximum of wall area <u>per story, including gable</u>	0 hours/no protection required	3 feet (F)
	Unlimited	0 hours	5 feet (G)
Penetrations (electrical, plumbing etc.)	All	Comply with Section R302.4 (penetrations are fire rated)	< 5 feet (H)
		None required	5 feet (I)

- a. Roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave if fire blocking is provided from the wall top plate to the underside of the roof sheathing.
- b. Roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave provided that gable vent openings are not installed.

***Be aware that addition roof venting per IRC, R806 will be required if fire blocking is used.*

Exceptions:

1. Walls, projections, openings or penetrations in walls perpendicular to the line used to determine the fire separation distance (J)
2. Walls of dwellings and accessory structures located on the same lot (K).
3. Detached sheds, playhouses and similar structures exempted from permits can be 3' from property line. Overhangs may not cross property lines (L).
4. Detached garages accessory to a dwelling located within 2 feet (610 mm) of a lot line are permitted to have roof eave projections not exceeding 4 inches (102 mm) (M).
5. Foundation vents installed in compliance with this code are permitted (N).



Fire resistance rating is not required for roof eave projections when fireblocking is installed.