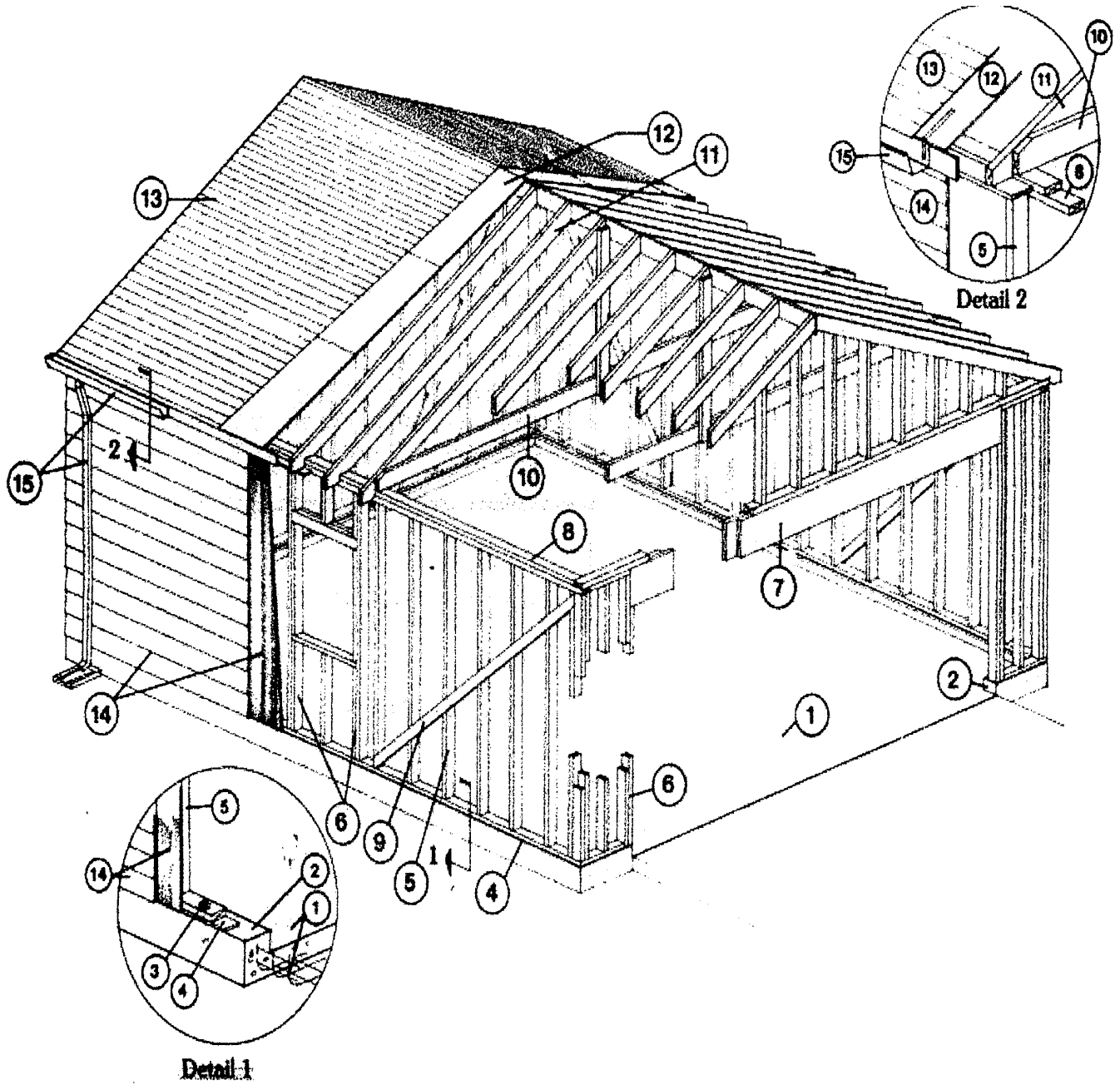


# Garage Construction



## **Garage Construction Requirements**

1. Garage floors shall be concrete with a minimum thickness of four inches and shall be placed on undisturbed earth or compacted granular fill. Reinforcement in the form of wire mesh shall be placed and rolled into curbs prior to concrete pouring.
2. A curb eight inches above finished grade and four inches wide, shall be formed and poured integrally with the floor slab. An inspection is required before pouring.
3. Anchor bolts (which secure the garage framing to the concrete curb) shall be placed twelve inches from each corner and a maximum of six feet apart.
4. Before anchoring the bottom plate, one-half inch thick bedding shall be applied to the curb top to assure a level condition and act as a vapor barrier.
5. Garage framing studs shall be spaced sixteen inches on center, or a maximum of twenty-four inches on center. Corners shall be constructed with double studs. When 5/16" thick primed masonite siding is used and sheathing is omitted, stud spacing shall be 16" on center. (Maximum).
6. All openings shall have double studding (one full-length stud and one jack stud).
7. Sixteen-foot long garage door headers shall be minimum of two 2x12's nailed together. Eight-foot long garage door headers shall be a minimum of two 2x10's nailed together. (Reversed gable garages shall have a 3/8" steel flitch plate sandwiched between two 2x12's for garage door headers.)
8. Top plates shall be doubled and shall lap each other at corners to tie walls together.
9. Wind bracing shall be installed at all corners at a forty-five degree angle. Bracing may be either notched into studding or may be surface-mounted on the interior side of the garage. It must extend into the top and bottom plates. Solid 4'x8' sheathing may be used for corner bracing.
10. Ceiling joists, sized according to the length of span, may be 2x6 or 2x8 nominal lumber.
11. Roof rafters shall be spaced sixteen inches on center or twenty-four inches on center, maximum for trusses.

(Continued)

## **Garage Construction Requirements**

12. Roof sheathing shall be approved for the application and on center spacing of rafters.

13. Roof covering may be asphalt shingles minimum 235 pounds in weight and may be installed directly over sheathing. (Felt paper may be omitted for garage construction.) **NOTE: Most common roof pitch for gable roofs is a 3/12, 4/12 and 5/12.**

14. Wood siding may be installed directly over wall studs without sheathing or felt paper. Vinyl siding needs sheathing and vapor barrier per manufacturer's specifications. (Joints must be staggered.)

15. Garages of all types must have gutters and downspouts. Downspouts must discharge so as not to create a nuisance and/or runoff onto adjoining properties.

## **Construction Specifications for Garages**

A garage building shall conform to all items listed below and all other applicable Codes and City Ordinances.

1. Before construction of a garage can commence, a building permit must be obtained from the Building Department. When applying for a permit, a plot plan (sketched or architecturally rendered) specifying the property lines (width and length of lot), the size of house structure, the measurement from the rear of the house to the rear property line, and where the proposed garage is to be built shall be submitted. The owner must show the size of the new garage, and show where the existing driveway is located. (See example of Plot Plan.)

2. If an old garage is to be torn down, a demolition permit is required.

3. Detached garages must be built at least 3' from the side and rear property lines.

4. No detached garage will be permitted to be built to a height greater than eighteen feet above existing grade.

5. Garage floors shall be sloped to a drain or to the garage door.

6. Garages attached to the dwelling must have a "fire" separation between the dwelling and garage.

7. All garages are required to have an exterior access door. If a door is to be between the living unit and the garage, the elevation of the garage floor must be at least four (4) inches lower than the sill of the door leading to the living unit to prevent water and gas from entering the home. The door must be "fire rated" and equipped with a self closing device and not less than 2'6" x 6'8".

8. Ceiling joists are sized according to the length of the span.

(Continued)

## **Construction Specifications for Garages**

9. Roof rafters shall be spaced sixteen inches on center or twenty-four inches on center, maximum. If spaced twenty-four inches on center with a single top plate, they shall be placed directly over the wall studs. Collar ties at eaves may be 2x4's with maximum spacing six (6) feet on centers.

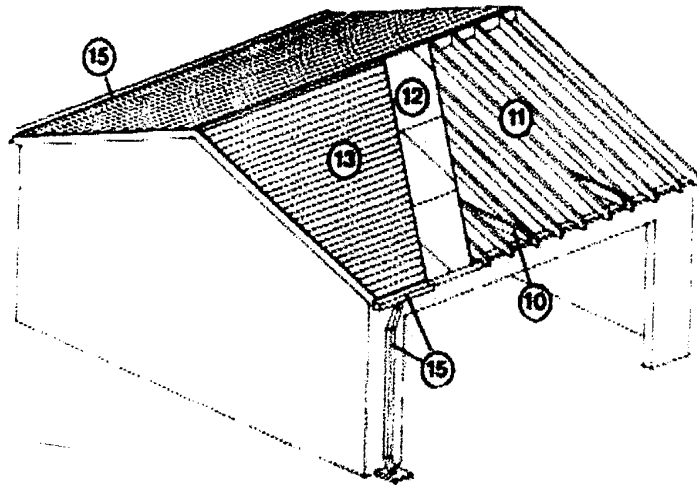
10. Roof covering may be asphalt shingles 235 pounds in weight and may be installed directly over sheathing. **NOTE: Most common roof pitch for gable roofs is 3/12, 4/12 and 5/12.** For hood type garages 90 lb. rolled roofing shall be applied and shall be blind nailed.

11. Electrical wiring is not required by code for a detached garage; however, if electrical lights and receptacles are installed, a separate permit is required. All wiring shall be installed per the National Electrical Code. Ground fault protection is also required for all 120-volt receptacles not occupied or designated for stationary appliances. **NOTE: Overhead garage door opener receptacles located in the ceiling area are not required to have ground fault protection.**

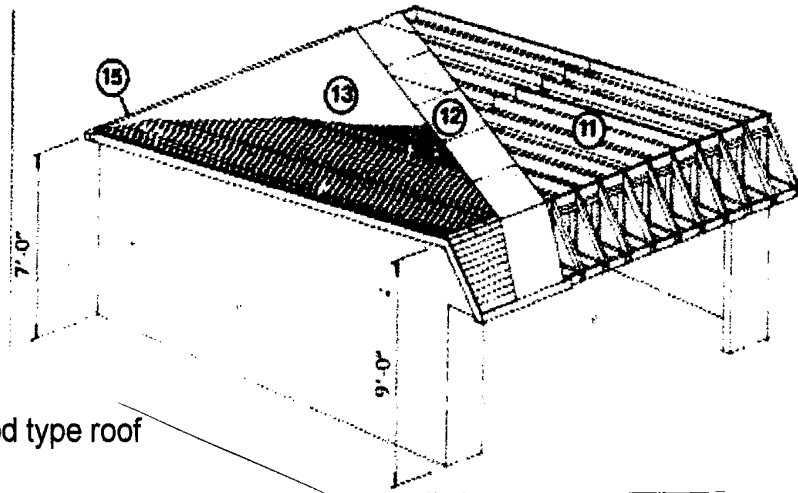
12. Standard minimum size of garages: The length of a garage shall not be less than 20 feet. The width of a single garage shall not be less than 10 feet. The minimum width for a two-car garage shall be 18 feet, 4 inches.

## Common Garage Roof Types

*NOTE: The examples of roof types shown here are the most commonly used in garage construction.*

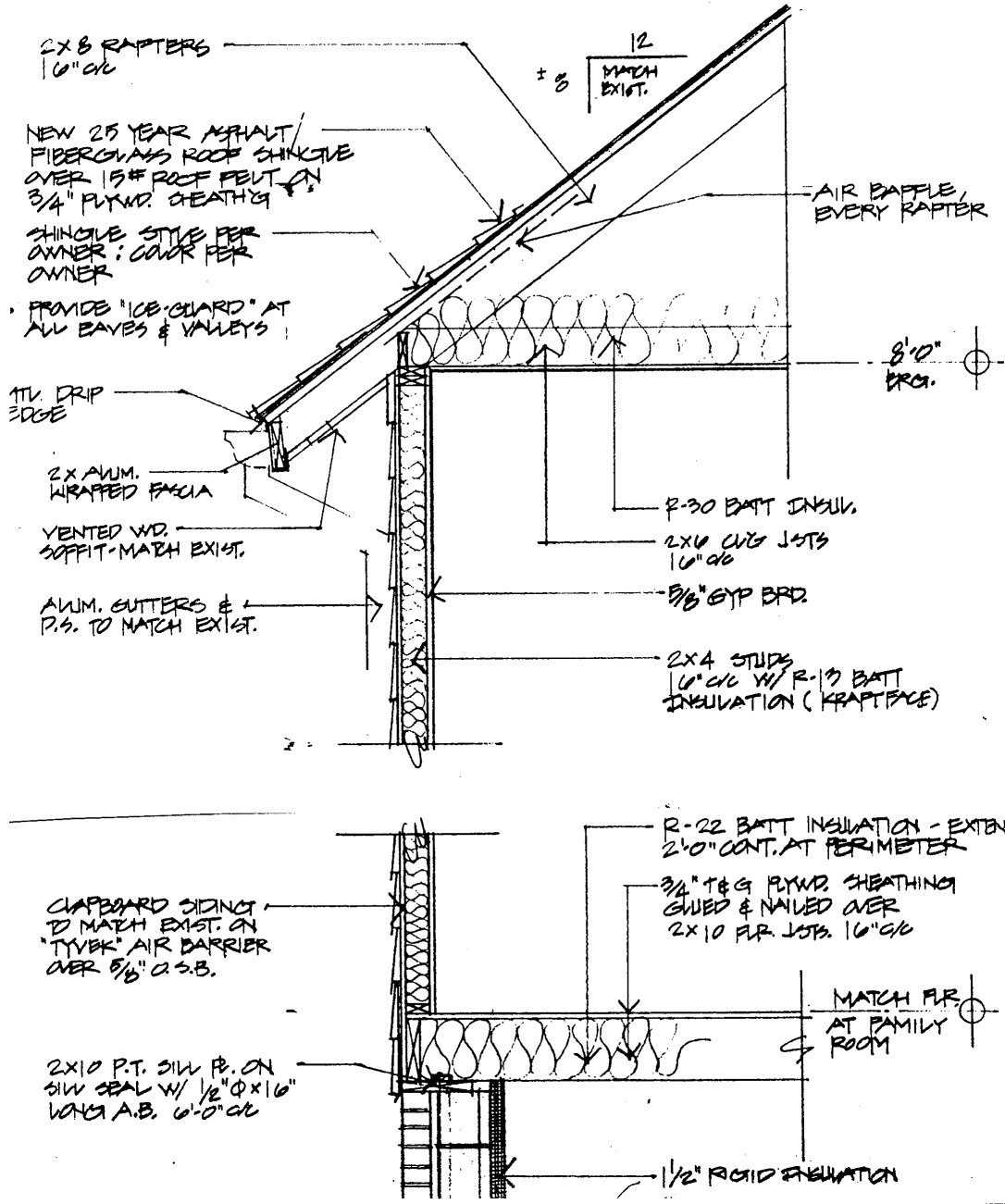


An example of a reverse gable garage roof



An example of a hood type roof

# Roof / Sidewall Example



**Construction Drawing:** A drawing indicating the Roof and Sidewall construction plan.