

Building Inspection Division**Definitions**

Accessory building, structure, or use: A subordinate building, structure, or use which is located on the same lot on which the principal building or use is situated, and which is reasonably necessary, appropriate and incidental to the conduct of the primary use of such building or main use. Accessory buildings or structures may be attached to or detached from the principal building and typically include (but are not limited to) garages, sheds, storage or workshop areas, docks, gazebos, and the like.

Building: Any structure having a roof and built for the support, shelter or enclosure of persons, animals, chattels, or property of any kind.

Gazebo: A freestanding accessory structure or pavilion. Such structures are characterized by partly open construction, design symmetry, and the use of ornamental architectural features.

Structure: Anything which is built, constructed or erected; an edifice or building of any kind; or any piece of work artificially built up and/or composed of parts joined together in some definite manner whether temporary or permanent in character. Among other things, structures include, but are not limited to, buildings, gazebos, decks, retaining walls, walls, fences over six (6) feet in height, and swimming pools, but excluding patios and similar at-grade improvements.

Building permit requirements

- **Signed, completed building permit application.** Be sure to include your daytime phone number.
- **Submit digital copies** of drawn to scale site plan based on a certificate of survey, indicating the lot dimensions, the location and dimensions of any existing structure(s) and the location and dimensions of the proposed structure.

Indicate the setbacks from property lines and wetlands/ buffers (if applicable).

- **Digital copies of plans** – Submitted plans must have sufficient detail to build the structure from them. A plan view, and elevation is required; all drawn to scale. Indicate all materials and sizes being used.
- **Building permit fee** is based on published fee schedule available at the Building Inspection Division.
- A **building permit is not required** for an accessory building 200 square feet or less in floor area.

Setback size & height requirements

Building setback, size and height requirements are established by the zoning ordinance and may vary according to location.

See “Accessory Buildings for Single-Family Homes Information Handout” or contact our Community Development Department for specific information.

Setback distances are measured from property lines, not from streets, curbs, sidewalks, fences, hedges, trees or poles. Property irons are located underground, and they establish property lines.

Note: *Locating the property corner irons (legal markers) is the responsibility of the property owner; irons must be visible when the footing inspection is requested. Setbacks are measured from the legal property line, wetlands or buffer (if applicable).*

Framing requirements

- **Base plates** on concrete shall be of approved treated wood.
- **Studs:** 2x4 inch studs not more than 10 feet in length, supporting ceiling and roof only, may be spaced 24-inch O.C. with framing above centered over studs.

- **Rafters and roof sheathing** for attached garages shall be designed for a 35 pounds per square foot live load.

The trusses may be of engineered design by an approved manufacturer.

Rafters shall be nailed to adjacent ceiling joists to form a continuous tie between exterior walls when such joists are parallel to the rafters. When not parallel, rafters shall be tied to 2x4 inch minimum cross ties. Rafter ties shall not be spaced more than four feet O.C.

- **Garage door headers** must be size appropriately based on span and opening size. Consult with your supplier.
- **Allowable rafter spans (ceiling not attached to rafters)** For roofs with a pitch of 3-12 or greater; assumes a "dead load" of ten pounds per square foot (PSF) and a deflection limit of L/180 (span in inches divided by 180).

Spruce-Pine-Fir #2/Doug-Fir #2 or better

Rafter Size	50 PSF Ground Snow Load		
	12" O.C.	16" O.C.	24" O.C.
2 X 6	11'-3"	9'-9"	7'-11"
2 X 8	14'-3"	12'-4"	10'-1"
2 X 10	17'-5"	15'-1"	12'-4"
2 X 12	20'-2"	17'-6"	14'-3"

- **Allowable ceiling joist spans** assumes limited attic storage (20PSF)/drywall ceilings.

Joist size	Spruce-Pine-Fir #2		Doug-Fir #2	
	16" O.C.	24" O.C.	16" O.C.	24" O.C.
2 X 4	8'-7"	7'-2"	8'-9"	7'-2"
2 X 6	12'-10"	10'-6"	12'-10"	10'-6"
2 X 8	16'-3"	13'-3"	16'-3"	13'-3"
2 X 10	19'-10"	16'-3"	19'-10"	16'-3"

Sheathing

Roof sheathing may be of approved wood structural panels (plywood, oriented strand board). The most common grades and thicknesses of sheathing that are appropriate for attached or detached garages with rafters/trusses spaced not more than 24-inch O.C. are:

- 24/16 – 7/16" and 1/2"
- 32/16 – 15/32", 1/2", 5/8"

Panels must be installed continuous over three or more rafters/ trusses with face grain perpendicular to supports.

Wall sheathing may be of approved plywood, fiber board or exterior gypsum sheathing. Fiberboard may not be used where studs are 24-inch O.C.

Water resistive barrier

If the new garage is attached to the home and/or to an existing garage attached to the home; a water resistive barrier is required over the sheathing. This barrier shall consist of one layer of No. 15 asphalt felt or other approved water resistive barrier, free of holes and breaks. Such felt or material shall be applied horizontally, with the upper layer lapped over the lower layer not less than 2 inches. Where joints occur, felt shall be lapped not less than 6 inches. Felt or other approved material shall be continuous up to underside of the rafter/truss top chord.

Attic ventilation

For buildings with finished ceilings, attic ventilation must be supplied. When the soffit vents and roof vents are installed, at least 40% and not more than 50% of the required ventilating area must be provided by ventilators located in the upper portion of the attic or rafter space.

Flashing

Required over all exterior exposed openings.

Valley linings

Valley linings shall be installed with manufacturer's installation instructions before applying shingles. Valley linings of the following types shall be permitted:

- For open valley (valley lining exposed) lined with metal, the valley lining shall be at least 24-inches wide using approved corrosion-resistant metals.
- For open valley, valley lining of two plies of mineral surfaced roll roofing shall be permitted. The bottom layer shall be 18 inches and the top layer a minimum 36 inches wide.

- For closed valleys (valley covered with shingles), valley lining of smooth roll roofing at least 36 inches wide or approved underlayment complying with ASTM D 1970.

Asphalt shingles

Roofs must have a minimum pitch of 2:12 or greater. A double underlayment application is required when the pitch is between 2:12 to 4:12.

Ice barrier protection

An ice barrier membrane must be installed to a point no less than 24-inches inside the exterior wall line. This product **must** be installed per the manufacturer's instructions.

Exception: *Detached accessory structures that contain no conditioned floor area.*

Fire protection

Attached garages shall be separated from living areas with an approved material such as minimum 1/2 inch gypsum wallboard or equivalent, applied to the garage side. This must extend into the soffit if continuous with the house.

Note: *5/8-inch Type X gypsum wallboard is required on any ceiling with living space above and the supporting walls must have a minimum 1/2 inch gypsum wallboard.*

A solid wood door 1-3/8 inch thick, solid or honeycomb core steel door 1-3/8 inch thick or a 20-minute fire rated door (labeled) shall be provided where the doorway penetrates the firewall. No doorway can open directly into a room used for sleeping purposes.

Detached garages less than 3 feet from a dwelling must have a minimum of 1/2 inch gypsum board applied to the inside portion of the garage wall that is parallel to the dwelling. No window openings are allowed. Doors are permitted that follow the above noted criteria for attached garages.

Garage doors

Garage doors must meet minimum wind resistance standards and must come with a **label** indicating the door complies with ANSI/DASMA 108 (designed for 90 mph wind).

Garage door openers

Automatic garage door openers must have a safety device that causes a closing door to open and prevents an open door from closing when a person or obstruction is encountered in the door's path. The device must be labeled as being in compliance with Standard for Safety UL 325.

Other permits

Separate permits are required prior to any electrical or mechanical work performed.

Inspections required

Footing: When footing is excavated and formed or slab is formed and sand cushion and reinforcement are in place, and prior to pouring concrete.

Rough-in: For any heating or electrical work performed.

Framing: When all framing is complete, all electrical and mechanical work is inspected and approved, but prior to insulating. Truss specifications must be on site for the framing inspection.

Insulation: When all wall insulation is in place and ceiling and wall vapor retarders are in place.

Final: When all work is complete, and after any electrical or mechanical work has received final inspection approval.



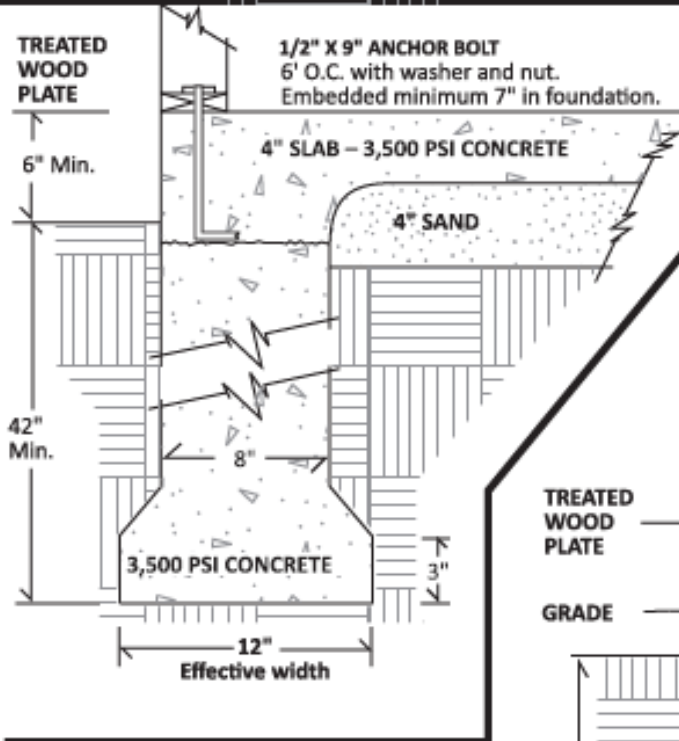
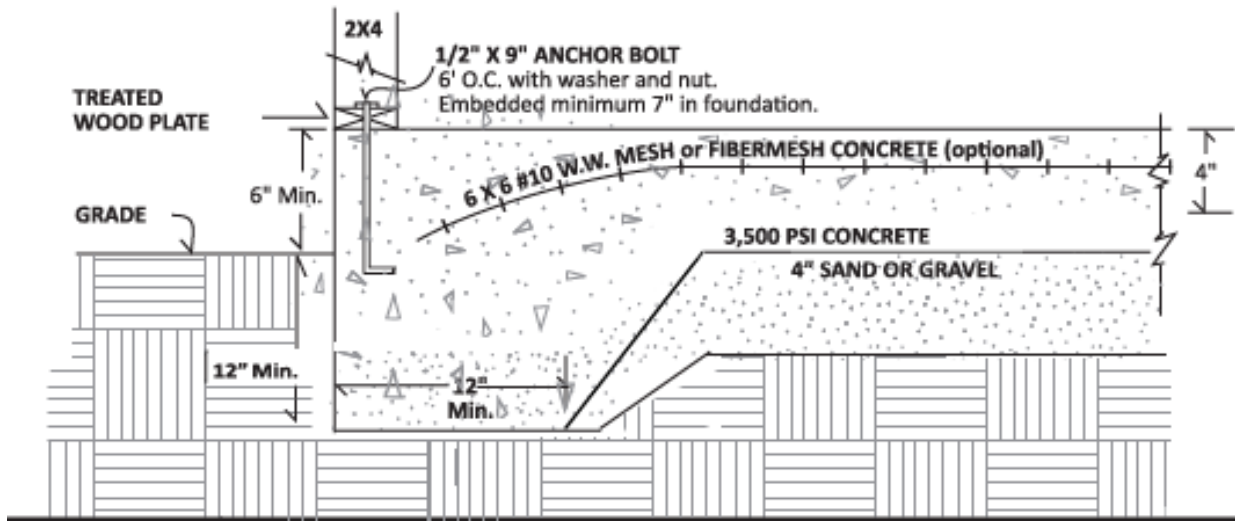
3400 Plymouth Blvd.
Plymouth, MN 55447

Call (763) 509-5449 between 8:00am – 4:30pm to schedule an inspection.

Call (763) 509-5430 for information regarding electrical, plumbing and mechanical permits.

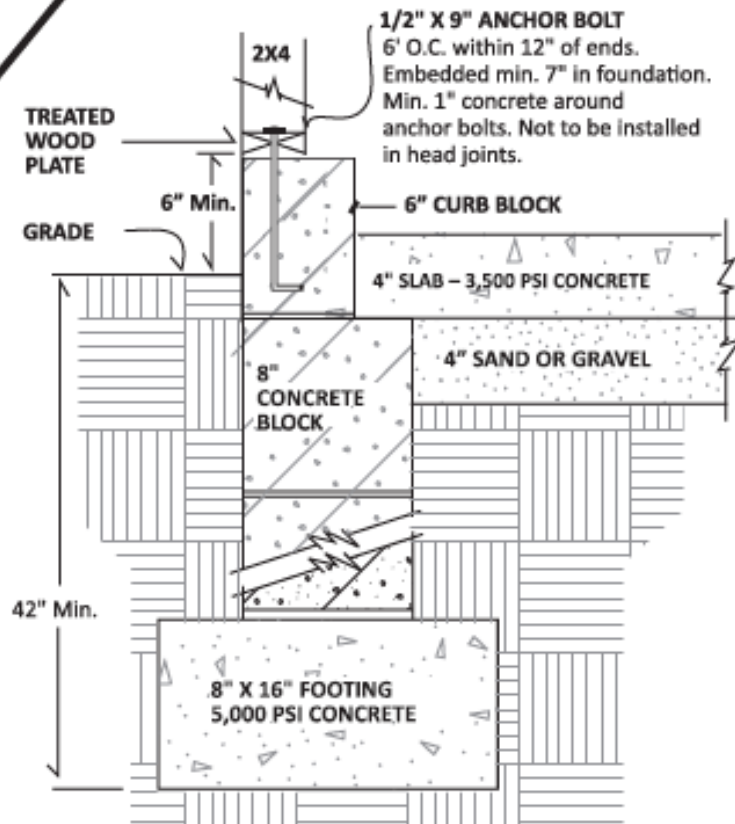
inspections@plymouthmn.gov

Slab-on-grade for detached garages



Poured concrete footing and foundation wall
Typical for attached garage

Concrete block foundation wall on concrete footing
Typical for attached garage



Note: Anchor bolts are a maximum of 6' O.C., 12" within any end or splice and minimum two per board.

This is a guide to the most common questions and problems. It is not intended nor shall it be considered a complete set of requirements.