Garage/Accessory Building Information Sheet

Building Inspections | City of Eden Prairie | 8080 Mitchell Road | Office: 952-949-8342

Definitions

Accessory Building or Structure: A subordinate building or structure which is located on the same lot on which the principal building is situated, and which is incidental to the primary building. Accessory buildings may be attached to or detached from the principal building, and typically include (but are not limited to) garages, sheds, storage or workshop areas, gazebos, etc.

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.

Building permit requirements

A. **Upload copies to ProjectDox** of a drawn-to-scale site plan based on a Certificate of Survey, indicating the lot dimensions, location and dimensions of existing structure(s) and location and dimensions of the proposed structure.

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

B. **Submit plans to ProjectDox.** 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.

C. **Building permit fee** is based on a published fee schedule available from the Building Inspections Division.

D. A **Building permit is not required** for an accessory building 120-square-feet or less in area.

Setback size and 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

A. **Base plates** on concrete shall be of approved treated wood.

B. **Studs:** 2 X 4-inch studs not more than 10 feet in length, supporting ceiling and roof only, may be spaced 24 inches O.C. with framing above centered over studs.

C. **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 2 X 4-inch minimum cross ties. Rafter ties shall not be spaced more than 4 feet O.C.

D. **Garage door headers** for use when garage door opening is 16 feet (full roof load chart assumes 24-foot engineered trusses with two foot soffit overhang).

No roof load	2 - 2” X 12” S-P-F or equivalent
Hip roof	2 - 2” X 14” S-P-F or equivalent or 2 - 1 3/4” X 11 7/8” Laminated veneer lumber (LVL) beams
Full roof load	2 - 1 3/4” X 14” LVL beams

LVL minimum properties 1.8 E, 2600 Fb

Special design required for 18-foot garage door openings and/or garages deeper than 24 feet.

E. **Allowable rafter spans** for roofs with a pitch of 3-12 or greater; assumes a “dead load” of 7 pounds per square foot (PSF) and a deflection limit of l/180 (span in inches divided by 180).

1. **Spruce-Pine-Fir #2 or better**

Rafter size	35 PSF live load		
	12” O.C.	16” O.C.	24” O.C.
2 X 6	12’-8”	11’-0”	9’-0”
2 X 8	16’-1”	13’-11”	11’-5”
2 X 10	19’-8”	17’-0”	13’-11”
2 X 12	22’-9”	19’-9”	16’-1”

2. **Hem-Fir #2 or better**

Rafter size	35 PSF live load		
	12” O.C.	16” O.C.	24” O.C.
2 X 6	12’-6”	10’-10”	8’-10”
2 X 8	15’-10”	13’-9”	11’-3”
2 X 10	19’-4”	16’-9”	13’-8”
2 X 12	22’-6”	19’-5”	15’-11”

F. **Allowable ceiling joist spans**

Assumes limited attic storage (20PSF)/drywall ceilings

Joist size	Spruce-Pine-Fir #2		Hem-Fir #2	
	16” O.C	24” O.C.	16” O.C.	24” O.C.
2 X 4	8’-7”	7’-2”	8’-4”	7’-1”
2 X 6	12’-10”	10’-6”	12’-8”	10’-4”
2 X 8	16’-3”	13’-3”	16’-0”	13’-1”
2 X 10	19’-10”	16’-3”	19’-7”	16’-0”

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-inches 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, exterior gypsum sheathing, hardboard panels or 1-inch foam boards which would require diagonal bracing at corners and at 25-foot intervals. Fiberboard may not be used where studs are 24-inches 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. The felt or other approved material shall be continuous to the top of walls and sealed around all penetrations.

Attic ventilation

For buildings with finished ceilings, attic ventilation must be supplied. When evenly distributed between the soffit vents and roof vents the total opening area may be 1/300th of the attic area.

Flashing

Required over all exterior exposed openings.

Valley flashing

Minimum 26-gauge galvanized extending at least 8 inches from center line each way. Provide an underlay of not less than 15-pound felt (unless heated) extending 18 inches each way from center line.

Asphalt shingles

Roofs must have a minimum pitch of 2:12 or greater. The entire roof must be covered by a self-adhering, ice barrier material when the pitch is between 2:12 and 4:12.

Roof starter strip

A manufactured ice dam protection 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. Start the product at the outer edge of facia boards.

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 a minimum 1/2-inch gypsum board or equivalent, applied to the garage side. This must extend into the soffit if continuous with the house.

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

A solid wood door 1-3/8 inches thick, solid or honeycomb core steel door 1-3/8 inches 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 ½-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 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 plumbing, heating and electrical permits are required for each type of work being done.

Inspections needed

Footing
When footing is excavated and formed, or slab is formed and sand cushion and reinforcement are in place.

Rough-in
For any plumbing, heating or electrical work that is involved.

Framing
When all framing is complete, all mechanical installed, but before insulating, truss specifications must be on-site for the framing inspection.

Lateral Bracing
When required on City-approved plans and inspection record cards.

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

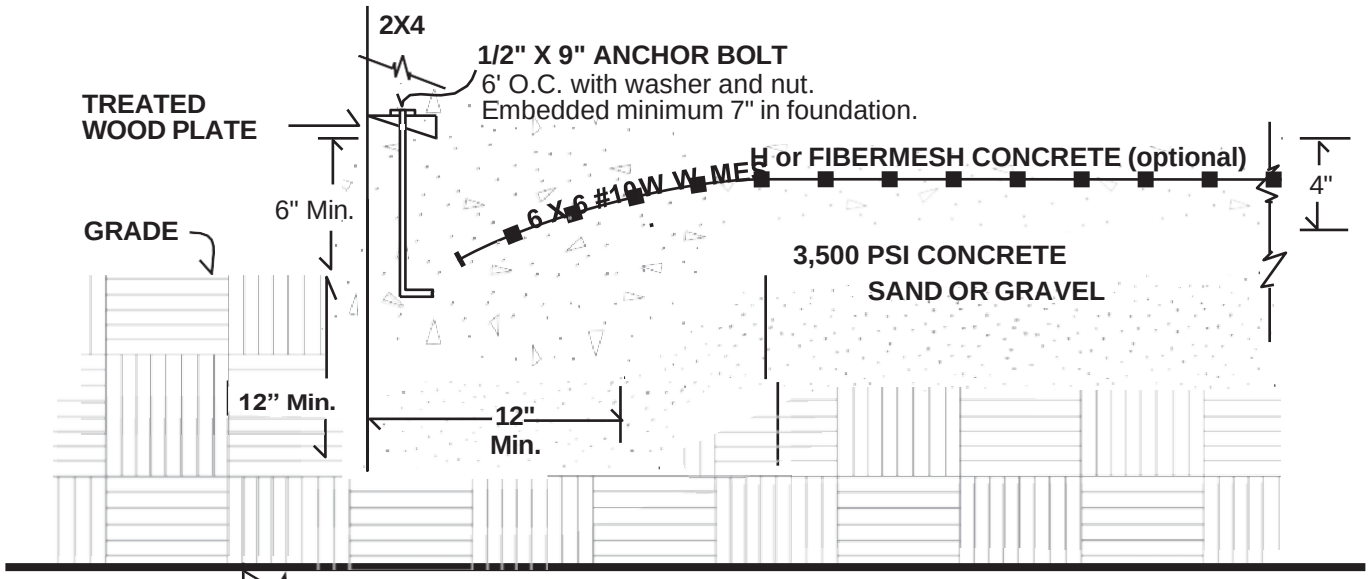
Final
When all work is complete and before garage is occupied or used for any purpose.

Note:

Housewrap
If the new garage is attached to the home and/or to an existing garage attached to the home, it must have housewrap/water-resistive barrier installed over the sheathing.

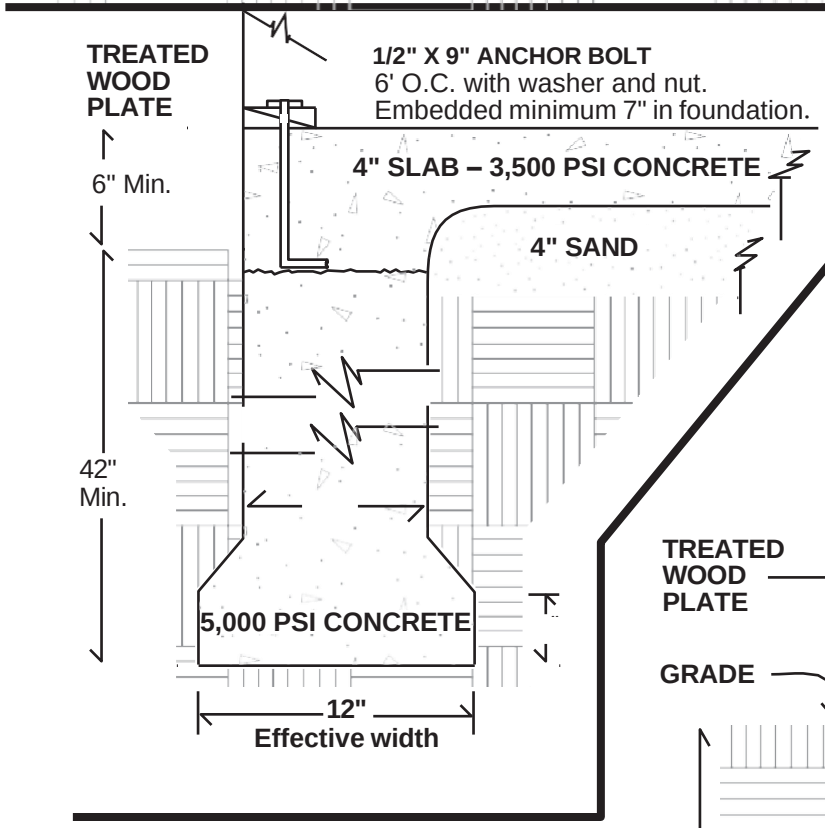
Questions? Need an inspection?
Contact Building Inspections

Slab-on-grade for detached garages



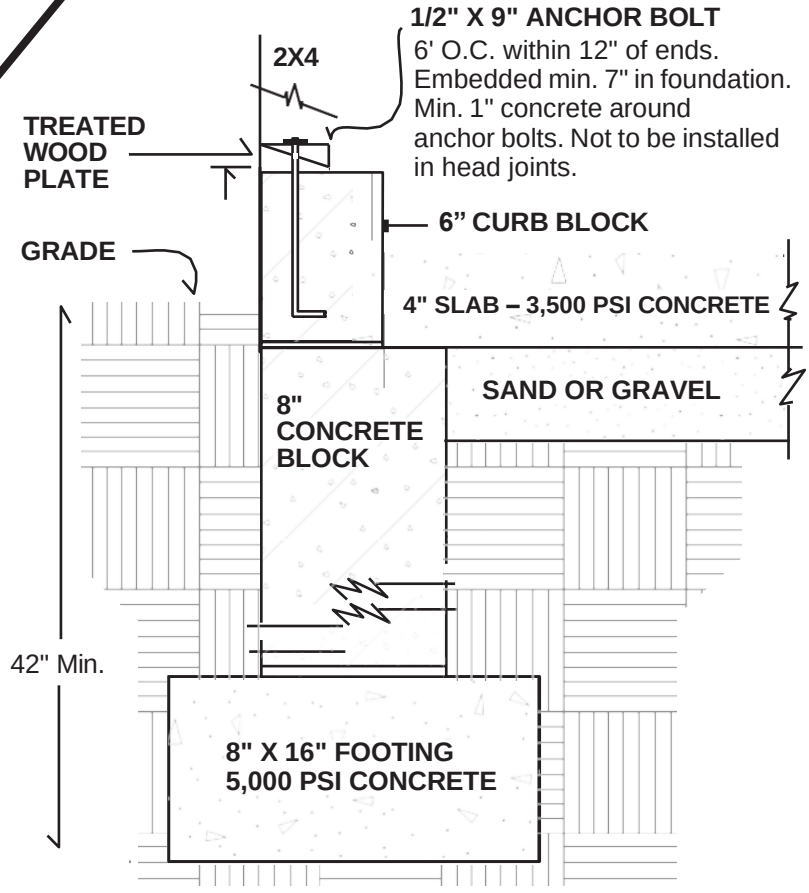
Poured concrete footing and foundation wall

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.