

## RESIDENTIAL GARAGE GUIDELINES

**T***o apply for a permit to add a garage to your house the following is required:*

*A signed, completed building permit application. A copy of the Certificate of Survey or site plan drawn to scale, showing property lines, existing buildings and the proposed structure location with distances to property lines. Two copies of building plans showing proposed designs and materials. Drawings must be to scale and include the following items:*

### A floor plan indicating:

- ☐ The proposed accessory structure size and shape, and setbacks.
- ☐ The size, spacing and direction of the roof framing.
- ☐ The size and location of windows and doors including header sizes, and type of lumber to be used.

### A cross-section indicating:

- ☐ Footing/slab design and size including materials.
- ☐ Exterior wall and roof construction materials.
- ☐ Height of the structure from grade and the roof slope.

### An elevation indicating:

- ☐ Front and side view of the proposed garage.
- ☐ Location of the door(s) and windows.
- ☐ Siding and roof covering materials.
- ☐ Size of all overhangs.

A separate permit is required for electrical, mechanical, and plumbing work. Inspections are also required. Verify the zoning requirements for your property. Structures cannot be placed within any utility or drainage, easements or setbacks; therefore it is important that you check with the Planning Department before starting.

### Footing/ Foundations

- Footings must extend to frost depth for all accessory structures. Exception: A "floating slab" up to 3,000 square feet may be used for the foundation support for detached structures.
- Remove all sod and vegetations and cover with a minimum of 4" of sand fill.

- At the perimeter of the slab, form a thickened edge (haunch) having a minimum vertical dimension at the exterior face of 18", at least 12" wide and sloped upward to the bottom of the slab. Minimum slab thickness shall be 3 ½".
- In cold weather, protect the concrete from freezing until cured.
- Install a minimum of two #4 rebars horizontally at the footing.
- A minimum of 300 PSI concrete is required for all exterior footings and foundations

### Anchor Bolts

- Foundation plates or sills shall be bolted to the slab or foundation wall with not less than ½" nominal diameter steel anchor bolts embedded at least 7" into the concrete and spaced not more than 6' apart. There shall be a minimum of two bolts per piece of sill plate with one bolt located within 12" of each end of each piece.



### Sill Plates

- Foundation plates or sill and sleepers on a concrete slab which are in direct contact with the earth and sill which rest on concrete or masonry foundations shall be approved treated wood or foundation redwood not less than 2" (nominal) in thickness. The sill width shall not be less than that of the wall studs.

### Wall Framing

- Studs must be placed with their wide dimension perpendicular to the wall, be not less than 2" X 4"s and shall be spaced not more than 24" O.C.

### Top Plate

- Bearing and exterior wall studs shall be capped with double-top plates installed to provide overlapping at corners and at intersections of other partitions. End joints in double-top plates shall be offset at least 24".

## Sheathing, Roofing & Siding

- Wall sheathing, siding, roof sheathing, and roof covering must be installed according to the manufacturers recommendations. Caulk and flash all exterior openings.

## Wood & Earth Separation

- Wood used in construction of permanent structures and located nearer than 6" to earth shall be treated wood or wood of natural resistance to decay.

## Roof Framing

- Size and spacing of conventional lumber used for roof framing depends upon the roof pitch, span, the type of material being used, and the loading characteristics being imposed.
- Garages must be designed for the snow load of 30 PSF.
- Rafters need to be framed directly opposite each other at the ridge. A ridge board at least one inch (nominal) thickness and not less in depth than the cut end of the rafter is required for hand-framed roofs. At all valleys and hips, there also needs to be a single valley or hip rafter not less than two inches (nominal) thickness and not less in depth than the cut of the rafter. For roof slopes less than 3:12 the valleys need to be designed as beams.
- Rafters must be nailed to the adjacent ceiling joist to form a continuous tie between exterior walls when the joists are parallel to the rafters. Where not parallel, rafters must be tied by a minimum one inch by four inch (nominal) cross tie spaced a maximum four

## ADDITIONAL ATTACHED GARAGE GUIDELINES

- For attached garages, the floating slab is not allowed. A foundation wall and footing system of minimum of 8" thickness and 48" depth must be constructed.
- Foundation walls can be concrete or wood but must be designed to support all loads.
- The wall between an attached garage and the house must have 1/2" gypsum board on the garage side from the floor to the roof deck above.
- If there is a 1/2" gypsum board ceiling in the garage, the gypsum on the garage side of the wall can terminate at the ceiling. If there is living space above the garage, the ceiling must be 5/8" gypsum board. If the separation between the garage and living area above is a floor/ceiling assembly, all portions of the structure supporting must also be protected with 1/2" gypsum board.
- Doors or windows between a garage and sleeping rooms are not allowed. Doors into the house from the garage must be 1 3/4" thick solid core wood, solid or honeycomb steel 1 3/4" thick or 20 minute fire

rated doors. If there is a window in the door from the garage into a house, that door / window assembly must be 20 minute fire rated.

- Ducts penetrating the wall, ceiling, or floor between a garage and house must have dampers unless they are at least No. 26 galvanized sheet gauge steel and have no openings directly into the garage.

*GENERAL GARAGE REQUIREMENTS ARE BASED ON THE CURRENT INTERNATIONAL RESIDENTIAL CODE (IRC) AND THE NORTH DAKOTA STATE BUILDING CODE. PLEASE REFER TO THE CODE FOR ADDITIONAL INFORMATION.*

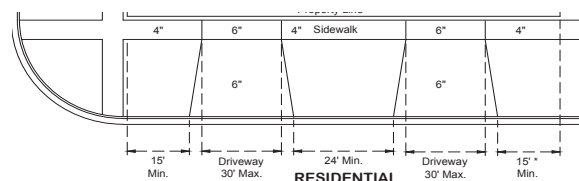
## INSPECTIONS

Please contact the Inspection Dept. 24 hours in advance for any scheduled inspection. To schedule contact 857-4102 between the hours of 8:00 and 4:30.

- Foundation:  
After excavation, loose soil and water is removed and steel reinforcement is in but prior to the placement of concrete.
- Rough-In:  
Completion of rough-in stage for plumbing, mechanical and electrical systems but prior to framing.
- Framing:  
When the roof, windows, interior doors and framing are complete.
- Insulation:  
After completion of all rough-ins, and framing inspections.
- Final:  
The final inspection is conducted after the foundation, rough-in, framing, and insulation work has been inspected and approved

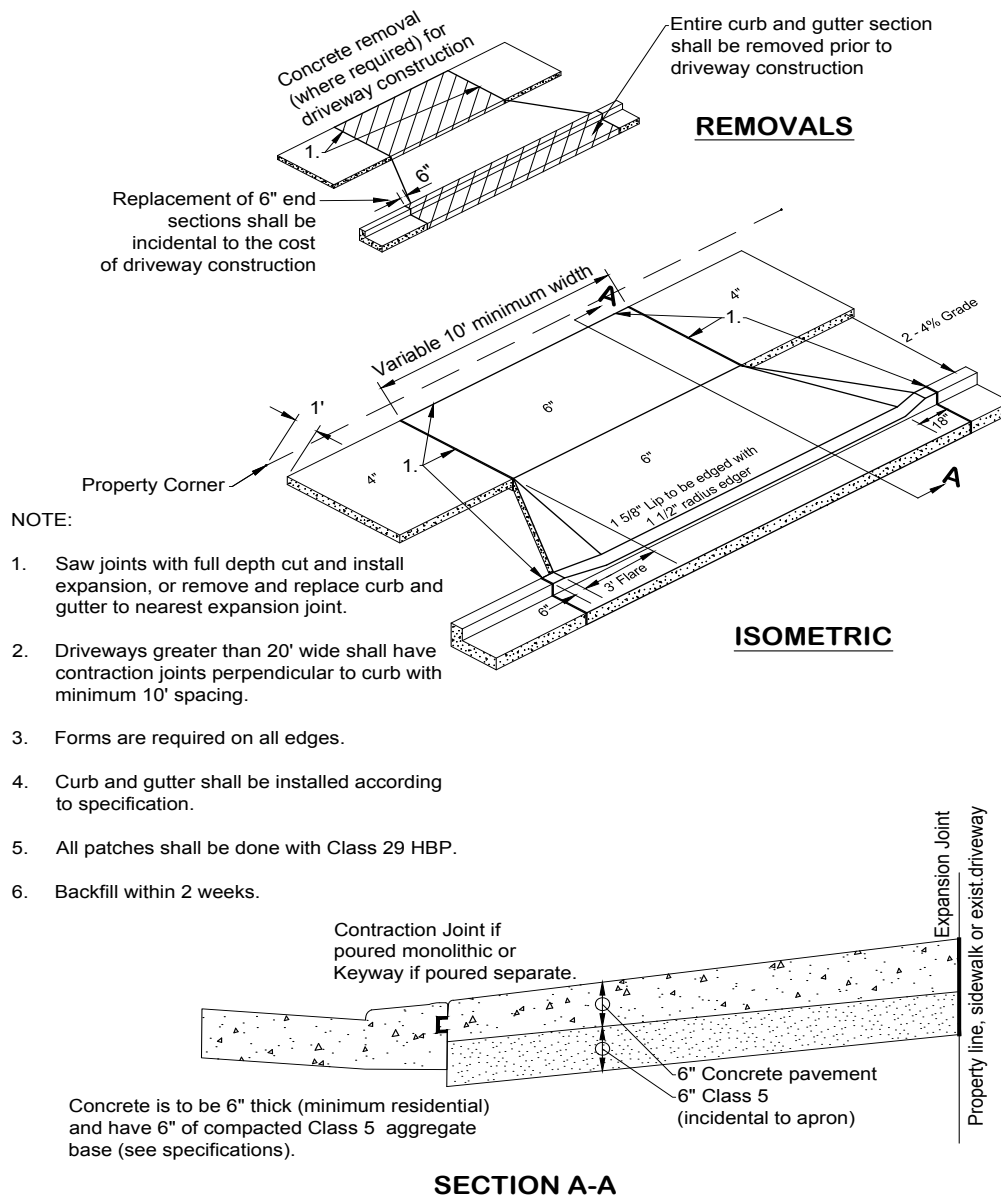
## DRIVEWAY

A minimum of 10 feet and maximum of 30 feet in width are allowed for residential approaches. A permit is required to alter the existing curb or to construct a new approach. The location of the approach on the property is also limited as shown in the figure below. Please contact the City of Minot Engineering Department for more information or to obtain a permit. (See the City web site at <http://www.minotnd.org/168/Standard-Specification-Documents>)



Source: City of Minot Engineering Department

RESIDENTIAL DRIVEWAY  
APPROACH LOCATION



Source: City of Minot Engineering Department

## RESIDENTIAL GARAGE APPROACH DETAIL

