## Sheds, Garages, and Pole Buildings

All sheds, garages, pole buildings or any accessory structures must have zoning approval whether it requires a building permit or not. The 2015 Michigan Residential Building Code exempts residential accessory structures 200 square feet or less from requiring a building permit. All accessory structures whether requiring a Building Permit or not are required to be in compliance with the Construction Codes. The following information is required for zoning approval and/or a building permit:

- 1.) A site plan indicating property lines, existing and proposed structures and all setback distances from structures and property lines.
- 2.) Zoning compliance permit.
- 3.) A plan indicating the construction of the building including a plan of the floor structure depending on permit requirement and the type of foundation.

All foundations require the base to be flat and square to the sides before concrete is poured. "Railing" is required if this condition cannot be obtained or soil conditions are of loose sand or gravel.

## **Types of Building:**

**Garage:** This is a light frame construction accessory structure that is constructed on a concrete foundation; it may be on footings that extend below the frost line or on a floating type foundation (if less than 600 sq.ft. and side walls at 10 feet or less in height). Soil conditions and slab re-enforcement need to be reviewed for approval of slab construction.

**Pole Building/Barn:** This is an accessory structure that is built with a post and beam type construction. The post and/or pad to extend to a minimum depth of 42 inches (42") below finished grade. A floor is commonly added and may require a rat wall. Cautions should be taken due to floor floating during frost conditions.

**Sheds:** If the building is less than 200 square feet, no building permit is required. Zoning and code compliance is still required on all construction, even when no Building Permit is required.

## **Foundation Information:**

**Frost-free foundations:** Must extend below the frost line of the locality. In Michigan that is a minimum of 42 inches (42") below outside finished grade. If this type of foundation is used please specify trenched or spread footings. Soil type and footing bearing area must be adequate to carry the load of the structure. Construction must be in a manner to resist any frost activity and must not be poured on top frost, ice or frozen soils. All bearing walls must be fully supported by the foundation wall. The exterior of all foundation walls below grade must be flush and vertical (no over pours); wall offsets to outside of foundations must be compliant.

**Floating Mat Foundations:** Must be able to resist any frost action and be able to support along with securing the integrity of the structure it supports. The soil must be of adequate load bearing capacity and subsoil drainage. The structure must be uniform in shape and apply a uniform load on to the foundation. In accessory structures greater than 600 sq. ft., floating mat foundations are not allowed. Some construction types will only allow 400 sq. ft. maximum for floating mat foundations. A complete diagram showing soil conditions and how the foundation is to be constructed and reinforced to resist frost action will be required.

**Post Foundations:** Normally use a post and beam construction method (decks, pole barns, etc). Typically a series of posts set below the frost line forming the walls with headers/carriers supporting a series of trusses that form the roof structure. The footprint of the vertical posts must be able to support the structure and applied loads without sinking. Each post installation will require a preset or pre-cast concrete pad, minimum 6" thick, under the post. The diameter is determined by the soil type and loading required. For the common pole type structure an 8" diameter pad is the minimum size permitted.

**Rat Walls:** Extend 24" below the outside grade, rat walls are required on all structures with walls enclosing habitable or occupied rooms and spaces in which people live, sleep, work or in which feed or food is stored, prepared, processed, served or sold. Rat walls are not foundations and should not be represented as such. Thickened edges are sometimes misrepresented as rat walls and should not be.