

### Protecting Your Investment

- ➔ Avoid using de-icing chemicals on your driveway, especially during the first winter. Instead, sand can be used for traction.
- ➔ When deicers are used, always be sure to check the labels. Some use chemicals unfit for use on concrete. Never use products which contain magnesium chloride or potassium acetate. Sodium chloride is the safest de-icer for use on concrete.
- ➔ Attempt to minimize the parking of vehicles on an unsealed driveway, as salt will drip from the vehicle and create surface damage, especially under or near the vehicle.
- ➔ Fertilizers should never be used as a de-icer. They contain substances which chemically attack concrete. Promptly sweep off any fertilizer that is inadvertently cast on the concrete when spreading lawns.

### CONGRATULATIONS.

You are the owner of a new concrete driveway. You have made an investment that will add value and aesthetics to your home for years to come. Like any building material, concrete requires some maintenance to maximize its service life. Please review this brochure for important information on practices to follow during construction and the following years of service for your concrete driveway.

For more detailed information:

Call your local concrete contractor,  
ready-mix concrete producer or  
check out our website at  
[www.ndconcrete.com](http://www.ndconcrete.com)

Recommendations for driveway design and construction come from ACI 330 and other ACI references. ACI should be consulted for jointing dimensions and mix characteristics for durable performance.



# Guidelines for Your Concrete Driveway



**North Dakota Ready Mix  
& Concrete Products  
Association**



# Guidance for your Concrete Driveway

## Getting a Bid for Concrete Work

**Thickness:** Your concrete contractor can be expected to give you a bid for the cost of the driveway usually on a square foot basis for a given thickness. Unless you have some truck loads or very poor soils, a 5" thick concrete section should be sufficient along with a compacted subgrade and some compacted granular base material. You may choose to go to a 6" thick driveway for some extra assurance.

**Importance for Curing:** All concrete should receive curing immediately after placement. **Your bid may or may not include this procedure, so make certain that this is clarified prior to start of work.** If it is not included in the base bid, ensure that you are quoted a price for curing. Curing procedures are used to prevent the loss of water or heat from the concrete mixture prior to gaining final strength, and should not be skipped.

**Guidance provided by your quality concrete contractor and/or ready mix supplier:**



In any case, curing for moisture retention is usually accomplished through the application of a curing compound spray applied to the flatwork surface within a short-time after texturing the surface of your concrete. In no case should the curing compound be applied later than an hour after dumping the concrete for finishing. In some dry, windy or hot conditions, curing has to be applied much sooner than normal to prevent drying of the concrete surface. Damage from lack of curing or delayed curing can include surface cracking, loss of aesthetics and durability of the surface, loss of surface paste from freeze/thaw damage in winter (scaling), mortar flaking, excess popouts, etc. Many distress issues in early age concrete are related to poor curing practices or lack of curing.

## Concrete Work in Cold Weather

**Protecting Your Concrete:** While it is not generally recommended in our northern climates, concrete can be successfully placed late into the fall if some precautions are made. Of prime importance is to keep the concrete from freezing when temperatures fall below 32°F. More than that, heat is necessary for the chemical reactions that give the concrete strength for loads and long-term durability. Therefore, concrete must be covered with blankets to preserve the heat in the concrete. Expect the blankets to be in place for seven days or more to develop the properties necessary for long life and good aesthetics.

## Time Frame: 30+ Days

**Seal Your Concrete:** When your concrete driveway is at least 4 weeks of age, but before cold weather, it is time to consider applying a concrete sealant for protection. Concrete sealers provide a barrier to penetration of water and salts, a great measure to prevent surface damage to the concrete during the next winter cycle.

- We recommend a high quality silane and/or siloxane be applied prior to the winter season.
- Your contractor or concrete supplier can provide recommendations on what products to use
- The sealer manufactures instructions should be followed. In general, the concrete should be dry and at least 50°F at time of application.
- If a Cure & Seal curing system was used, special steps may be needed to prepare the surface to allow sealer penetration.

## Time Frame: Beyond Your 1st Year

**Regular Maintenance:** Follow your sealer manufacturer's recommended reapplication schedule. Typically, sealers will need to be reapplied every two to four years. You can spot check your concrete to determine when sealers need to be reapplied when water is absorbed into surface to create a darkening color. If the color remains unchanged from its lighter shade, or water beads up, the sealer is still working.