

## Residential Asphalt & Concrete Driveway Installation Requirements

Rules and Regulations Promulgated under Shaker Heights Codified Ordinance 1301.07

### General Requirements

- ❖ Pre-pour inspections are required before new concrete or asphalt is installed or asphalt resurfacing.
- ❖ The finish surface of the driveway shall not exceed the height of adjacent basement window wells, door threshold or basement window sills. The surface of the driveway shall not impede the operation of doors or windows. Where asphalt resurfacing would not meet this criteria, sub base material must be removed or existing asphalt ground down.
- ❖ All driveway installations must direct water flow away from the house/garage and either into a storm sewer catch basin or to the public street. New catch basins shall be a minimum of 12" in diameter. Water shall not drain onto adjacent properties.
- ❖ Driveway surface shall not be higher than the garage floor.
- ❖ Create a smooth base for the driveway on top of compacted subgrade. Unsuitable material (spongy material, roots, shale, etc.) shall be removed prior to placement of the base. Base course should be spread evenly so paving will be an even thickness. Appropriate grading and fill shall be placed prior to setting forms.
- ❖ Paving shall not come in contact with:
  - wood or any building materials that can rot or decompose.
  - vinyl, aluminum, wood siding or any framing materials.
  - fence elements, exclusive of the posts.
- ❖ Finished Driveway surface shall be free of depressions which allow ponding of water.
- ❖ Soil along the edges of the driveway shall be regraded and seeded. Adequate embankment shall be placed adjacent to new paving and aggregate base materials to insure that no voids develop beneath the new pavement.

### Specific Requirements for Concrete

- ❖ City of Shaker Heights enforces a concrete pouring ban from November 15<sup>th</sup> to April 15<sup>th</sup> unless American Concrete Institute cold weather practices are followed and approved prior to work starting.
- ❖ Provide a minimum compacted aggregate base of four inches (4") compacted stone, gravel, or limestone screening.
- ❖ Either wire mesh or synthetic fibers reinforcement must be used to help control cracking due to shrinkage of the concrete. Wire mesh shall be 6x6 –w1.4x1.4 WWF placed in middle of slab. Fiber shall be installed at the plant in accordance with the manufacturer's recommended application rate of pounds per yard of the mix.
- ❖ Concrete driveway shall have a minimum uniform thickness of four inches (4"). The sidewalk and apron portion of the driveway shall have a minimum uniform thickness of six inches (6").
- ❖ Felt or fiberboard expansion joints are required to be installed every thirty feet (30') in length, shall be one-half inch (0.5") thick, and installed where the concrete abuts:
  - other concrete, including but not limited to: garage floors, foundations, sidewalk, service walks, patios, public streets, or adjacent drives.
  - fence posts.
  - a portion of concrete that is poured at a different depth, i.e. where the 4" drive meets the 6" apron.
  - steel columns, brick, CMU, or pavers.
- ❖ Control joints shall be a depth of one-quarter the thickness of the slab. The control joints shall be installed at a minimum of ten foot (10') horizontal intervals for four inch (4") concrete. Control joints may be installed with a jointing tool in wet concrete or cut with a diamond blade four to twelve hours after finishing concrete.
- ❖ Minimum floating shall be required. A non-slip finish is required.
- ❖ Concrete must achieve a rating of 4000 PSI within 28 days.
- ❖ Curing compound must meet ASTM C309 and shall be immediately applied after broom finishing without damaging the surface. Application shall be in compliance with the manufacturer's installation instructions.
- ❖ Calcium or other admixtures shall not be added at the job site.
- ❖ The dumping of concrete wash water into storm sewers, ditches, the public right of way (including tree lawns) neighboring properties, or other surface waters is strictly prohibited.

### Specific Requirements for Asphalt

- ❖ No asphalt paving is permitted for driveway aprons or sidewalk blocks in the public right away.
- ❖ Paving over existing concrete with asphalt is prohibited.
- ❖ New asphalt pavement shall be provided with either of the following designs:
  1. Two inches (2") of 441 AC Surface Course, Type 1, (448), PG64-22, 408 Prime Coat (0.4 gallon per square yard), Six inches (6") of 304 Aggregate Base (or 411 stabilized crushed aggregate)
  2. One and a quarter inches (1.25") of 441 AC Surface Course, Type 1, (448), PG64-22 407 Tack Coat (0.04 gallon per square yard) Three and a half inches (3.5") of 301 Asphalt Concrete Base, PG64-22
- ❖ Recoating of asphalt shall be a minimum uniform thickness of two inches (2").