## ARTICLE 917 Sidewalk Construction Specifications

917.01 Specifications for one course.

917.02 Specifications for two course.

## CROSS REFERENCES

General powers relative to sidewalks - see W. Va. Code 8-12-5(1) et seq. Low cost improvements - see W. Va. Code Art. 8-17 Sidewalk assessments - see W. Va. Code Art. 8-18

## 917.01 SPECIFICATIONS FOR ONE COURSE.

- (a) <u>Generally.</u> The specifications for the construction of concrete sidewalks, one course, shall be as provided in this section.
- (b) <u>Portland Cement.</u> Portland cement shall meet the requirements of the latest standard specifications of the American Society for Testing Materials.
- (c) <u>Fine Aggregate</u>. Fine aggregate shall consist of natural sand or manufactured sand made from hard tough crushed rock. It must be clean and well graded. All fine aggregate shall pass one-quarter inch screen and ninety-five percent shall be retained on a one hundred mesh screen.
- (d) <u>Coarse Aggregate.</u> Coarse aggregate may be pebbles, broken stone or blast furnace slag. It must be clean, hard, durable and uncoated. All coarse aggregate shall pass a one inch screen and ninety-five percent shall be retained on a one-quarter inch screen.
  - (e) Water. Water shall be clean enough to drink.
- (f) <u>Forms.</u> Forms shall be of lumber two inches thick or of steel of equal strength. Flexible strips may be used on curbs. They shall be rigidly held to line and grade by stakes and braces.

- (g) <u>Subgrade</u>. Subgrade shall be well drained and compacted to a firm surface with uniform bearing power.
- (h) <u>Drains.</u> Drains, where necessary, shall be four-inch tile drains and shall be laid to protect the walk from damage by frost action.
- (i) <u>Subbase.</u> On poorly drained soil, where drains are impracticable, a five-inch subbase of cinders, gravel or other porous material shall be constructed. It shall be thoroughly tamped and drained into the street gutter.
- (j) <u>Thickness and Proportions.</u> The sidewalk shall never be less than four inches thick. Concrete shall be mixed in the approximate proportions of one part cement, two parts fine aggregate and three parts coarse aggregate, with a maximum of six gallons of water per sack of cement including the moisture in the aggregates.
- (k) <u>Mixing of Concrete</u>. Concrete shall be mixed until each particle of fine aggregate is coated with cement and each particle of coarse aggregate is coated with mortar, and not less than one minute.
- (l) <u>Placing and Finishing</u>. Concrete shall be placed immediately after mixing. It shall be tamped and struck off with a template and shall be floated with a wood float until the surface as a true contour. Care shall be taken not to bring to the surface an excess of water and fine sand by overfinishing.
- (m) <u>Jointing.</u> The sidewalk shall be cut into separate slabs not greater than eight feet on any one side. The surface edges of each slab shall be rounded to a one-quarter inch radius. Markings shall be exactly at outs between slabs.
- (n) <u>Expansion Joints</u>. Expansion joints shall extend from the surface to the subgrade and shall be at right angles to the sidewalk surface and completely filled with compressible material. A one-half inch expansion joint shall be made across the walk at approximately fifty foot intervals. All places where the walk intersects a curb line or another walk, one inch expansion joints shall be made.
- (0) <u>Curing.</u> Finished concrete shall be kept wet for a minimum of seventy-two hours. (1969 Code 21-26 to 21-40.)

## 917.02 SPECIFICATIONS FOR TWO COURSE.

(a) <u>Generally.</u> Specifications for concrete sidewalks, two course, shall be the same as for one course, except as otherwise provided in this section.

- (b) <u>Thickness and Proportions.</u> Two course sidewalks shall never be less than four inches thick. They shall consist of a base three-inches thick composed of concrete in the approximate proportions of one part cement, two and one-half parts fine aggregate, four parts coarse aggregate and a maximum of six gallons of water per sack of cement, and a top coat one inch thick composed of mortar in the proportions of one part cement and two parts fine aggregate.
- (c) <u>Placing and Finishing.</u> The base shall be thoroughly compacted by tamping and shall be struck off with a template which shall leave it one inch below the finished surface. The top course shall be placed within forty-five minutes after the base course is laid. It shall be struck off and finished with a wood float until the surface has a true contour. (1969 Code 21-41 to 21-43.)