

## CHAPTER 3

CONSTRUCTION OF SIDEWALKS, CURBS AND GUTTERS<sup>1</sup>

## SECTION:

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## 7-3-1: PERMIT REQUIRED:

No sidewalk or curb and gutter shall be constructed on any street, alley, avenue or other public property in this City without first having obtained a permit from the City Council. Application for such permit shall be made on forms to be approved by the Council and shall sufficiently describe the contemplated improvements, the contemplated date of beginning work and the length and time of completion of the same. Provided that no permit shall be required for any such improvement ordered to be installed by the City. (Ord. 36, 5-1-1969)

## 7-3-2: SPECIFICATIONS AND REGULATIONS:

All sidewalks and curb and gutters constructed upon any street, alley, avenue or other public property in this City shall be constructed according to the plans and specifications herein provided. Before any construction work is begun, the City, at its own expense, will furnish stakes for the established grade and for the line of the improvement. (Ord. 36, 5-1-1969)

## 7-3-3: SUBGRADE:

The subgrade for sidewalk and curb and gutter shall be firm, compact and of uniform density. All soft or spongy material or vegetable matter must be removed and replaced with suitable materials. The subgrade shall be finished to a uniform surface at the required depth below the established grade of the improvement. (Ord. 36, 5-1-1969)

## 7-3-4: FORMS:

All forms shall be made of rigid metal or straight and sound

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1. M.S.A. § 412.221, subd. 6.

lumber not less than one and one-half inches ( $1\frac{1}{2}$ " ) in thickness. Forms shall be free from warp and of sufficient strength to resist springing out of shape. All forms shall be thoroughly cleaned and oiled before the concrete is placed. The forms shall be securely staked to the established line and grade. (Ord. 36, 5-1-1969)

#### 7-3-5: MATERIALS:

A. Cement: The quality of the cement used shall conform to the latest "Standard Specifications for Standard Portland Cement" of the American Society of Testing Materials.

B. Fine Aggregate: The fine aggregate shall be sand, consisting of particles of sound, durable rock washed clean and free from an injurious amount of organic matter, lumps of clay and other deleterious substances.

C. Coarse Aggregate: The coarse aggregate shall be screened gravel or crushed quarry rock of the proper sizes. It shall be clean and free from shale or injurious organic matter.

D. Water: The water used in the concrete shall be reasonably clear, and shall be free from oil, acid, injurious alkali or vegetable matter. No more than six (6) gallons of water per bag of cement shall be used. (Ord. 36, 5-1-1969)

#### 7-3-6: METHODS:

A. Mixture: The materials used in each batch shall be weighed or accurately measured so as to get a uniform product. The materials shall be proportioned so as to produce a uniform, dense, workable concrete which will have a compressive strength of not less than two thousand (2,000) pounds per square inch at twenty eight (28) days. In no case will a mixture be used which has less than six (6) bags of cement for each cubic yard of concrete.

B. Mixing And Placing: The mixing shall be done in an approved batch mixer until the cement is uniformly distributed and the mass is uniform in color and consistency. The mixing period shall be not less than ninety (90) seconds after all ingredients are in the mixer. The concrete shall be placed in the forms before it begins to set, tamped and struck off to the proper grade.

C. Curing: The concrete shall be cured by covering with a wet burlap or other approved covering for three (3) days or by using an admixture of calcium chloride. If the work is placed in weather when freezing temperatures may be expected, the concrete shall be given adequate protection.

D. Moistening: The sand base for concrete walks and the subgrade for curb and gutter shall be moistened before the concrete is placed. (Ord. 36, 5-1-1969)

## 7-3-7: SIDEWALKS:

A. Width: The walks in the business district shall be not less than four feet (4') in width, except where the City Council shall, by resolution, order different widths. The width of new walks as far as possible shall conform to that of adjacent walks.

B. Thickness: The sidewalk shall consist of two (2) parts, referred to as the base and the surfacing.

1. Surfacing: The surfacing of the walk shall be not less than four inches (4") thick where used by pedestrians only, and not less than six inches (6") in thickness where crossed by vehicles.

2. Base: The base of the walk shall be not less than four inches (4") in thickness, except where the nature of the soil is such that the City Council or the City Engineer shall order a thicker base.

C. Base: The base shall consist of a layer of pit run sand or gravel not less than four inches (4") in thickness and shall be thoroughly tamped to a uniform grade.

D. Surface: The surfacing of the walk shall be concrete having not less than the thickness provided herein, laid to a slope of one-eighth inch ( $\frac{1}{8}$ ") per foot downward towards the street, and shall be composed of materials and placed according to the methods described above.

E. Joints: Contraction joints shall be made not more than five feet (5') apart, perpendicular to the center line and to the surface of the sidewalk and shall, where possible, align with joints of abutting or adjacent work. Expansion joints may be preformed or poured type. They shall be one-half inch ( $\frac{1}{2}$ ") wide placed at uniform intervals not to exceed twenty five feet (25') apart. Expansion joints shall also be placed between the walk and all abutting curbs, buildings or other masonry and concrete work.

F. Finishing: The top surface of the walks shall be checked and variations of more than one-eighth inch ( $\frac{1}{8}$ ") shall be corrected; then the walk shall be finished with floats and trowels to a smooth true slightly granular surface. The edges along the sides and at transverse joints shall be carefully rounded and marked with the proper edging tools. (Ord. 36, 5-1-1969)

## 7-3-8: CURB AND GUTTER:

A. Dimensions: The curb and gutter shall be built in accordance with plans for curb and gutter placed on file in the office of the City Administrator and approved by the City Council. The curb shall be six inches (6") high above the gutter. The gutter shall be twenty four inches (24") wide from the face to the curb. The curb shall be six inches (6") thick; the gutter six inches (6")

thick at the face of the curb and seven inches (7") thick at the edge.

B. Contraction Joints: After the forms have been securely set to line and grade, steel bulkhead plates one-eighth inch ( $\frac{1}{8}$ ") in thickness shall be placed in the forms eight feet (8') apart, vertical and perpendicular to the line of the curb. The concrete shall be placed and allowed to set sufficiently to hold its shape, then the plates shall be removed.

C. Expansion Joints: Expansion joints shall be placed not greater than twenty four feet (24') apart. They shall be one-half inch ( $\frac{1}{2}$ ") thick shaped similar to the contraction joints and filled with suitable material. Expansion joints shall be placed between the curb and gutter and all adjacent concrete or masonry work.

D. Finishing: The top and face of the curbs shall be finished with trowels, floats or bricks using a group composed of one part of Portland cement and one part of sand while the concrete is still green. The treatment shall continue until the surface of the concrete has been rubbed smooth and until a uniform color is produced. (Ord. 36, 5-1-1969)

#### 7-3-9: INSPECTION AND SUPERVISION:

The Council shall require inspection and supervision of all work done hereunder as deemed necessary. Any work not done according to specifications shall be corrected or removed at the expense of the permit holder. Any unsatisfactory work in the process of being constructed shall be stopped by the inspector as soon as discovered. (Ord. 36, 5-1-1969)

#### 7-3-10: PENALTY:

Any person violating many of the provisions of this Chapter shall, upon conviction thereof, be subject to penalty as provided in Section 1-4-1 of this Code. (Ord. 36, 5-1-1969; 1996 Code)