

Relating to sidewalks, their construction, grading, paving and repairing, by the owners of lots fronting thereon and providing a method of construction, grading, paving and repairing to be done by the Borough upon failure of owner so to do.

BE IT ENACTED BY THE BOROUGH COUNCIL, OF THE BOROUGH OF MIDDLEBORO, AND IT IS HEREBY ORDAINED AND ENACTED BY THE AUTHORITY OF THE SAME AS FOLLOWS:

SECTION I. That sidewalks be, and the same are, hereby established on all highways of the Borough.

SECTION II. That the respective owners of all lands fronting or abutting upon any of the streets or highways of the Borough of Middleboro, Pennsylvania are hereby ordered and directed to lay and construct a cement sidewalk or footwalk, to grade along the whole frontage of their respective properties according to plans and specifications required by the general regulations of the Borough in such cases provided.

SECTION III. That it shall be the duty of all property owners to secure from the Borough Officials the proper grade for the construction of said sidewalk and it shall be unlawful for any person to construct a sidewalk at a different grade than that furnished by the said Borough.

SECTION IV. Upon the neglect of any owner of lots to comply with the requirements as provided in the preceding Sections of this Ordinance, the Borough may, after thirty (30) days notice, cause the construction, grading, paving and repairing to be done and may file a Municipal Claim therefore or collect the same by Action in Assumpsit in accordance with the Laws of the Commonwealth of Pennsylvania in such cases made and provided. Upon the filing of a Municipal Claim therefor, or collecting the same by an Action in Assumpsit, an additional five per centum of the cost may be collected.

SECTION V. Snow removal from sidewalks shall be the responsibility of the landowners upon whose property the sidewalks front.

SECTION VI. Shade trees shall be saved wherever it is possible to adjust the location of the sidewalks without seriously affecting the overall appearance.

SECTION VII. All Ordinances or parts of Ordinances, conflicting herewith, are hereby repealed.

Enacted into an Ordinance this 5<sup>th</sup> day of September, 1956.

Attest: Scotty J. Blount Secretary  
Alfred A. Zentler President

Approved this 5<sup>th</sup> day of September, 1956.

Harley F. Blount

## OUTLINE OF SPECIFICATIONS

Forms - Set to grade. Slope 1 inch to street. *4' wide*  
Expansion Joints - At curbs or buildings and other walks.  
Concrete - Approved aggregates mixed 1 x 2 x 3/2".  
Placing - One course 4" thick in blocks cut through.  
Driveways - One course 6" thick.  
Curing - Cover with burlap and keep wet.

## BOROUGH OF MIDDLEBORO

### STANDARD SPECIFICATIONS FOR SIDEWALKS

#### 1. Subgrade - Preparation of Subgrade:

Subgrade shall be prepared to insure a uniform bearing surface. All soft and spongy places shall be dug out and the holes filled with solid material, thoroughly tamped. All fills shall be thoroughly and solidly packed or rolled. The materials for fills being spread in 6-inch layers and consolidated by roller or other methods of packing. Where ground is naturally wet, 4-inch tile drains packed in gravel should be laid under walk. Where ground is not solid and well drained, the walk should be laid on cinder or gravel fill not less than 6-inches in depth when packed or upon a fill composed of a uniform coarse gravel from 1 to 2 inches in diameter.

#### 2. Forms:

Forms may be of wood or metal. If of wood, they shall be not less than 2-inches in thickness. Forms shall be staked out so as to be firmly held in place with the top edge of the form set exactly to the grades at which the sidewalk is to be laid. After the placing of sideforms, cross forms shall be placed at intervals equal to the width of the walk being constructed. Metal cross forms of 3/16" in thickness shall be used if possible. Forms shall be set in such a way as to give the walk a pitch or slope toward the street of 1/4-inch per foot of width of walk.

#### 3. Expansion Joints:

The contractor shall furnish and install asphalt or tar impregnated felt expansion joint 1/2-inch in thickness and for each twenty-five (25) feet of walk. Expansion joints shall also be placed at all points where the new walk abutts against existing intersecting walks, or against curbs or buildings, also each side of blocks where replaced because of heaving by tree roots. These expansion joints shall be installed flush with the top of the walk and shall be of a thickness equal to the thickness of the walk under construction.

#### 4. Cement - Portland Cement:

Portland cement shall conform to the definition and meet the requirements of the Standard Specifications and Tests for Portland Cement of the American Society of Testing Materials, specifications Serial Designation C9-38, or for High-Early strength cement, shall meet specifications Serial Designation C74-38.

#### Chemical Properties:

The following limits shall not be exceeded: Insoluble residue, 0.35 percent; sulfuric anhydride, (SO3) two percent; Magnesia (MGO) five percent.

The specific gravity of cement shall not be less than 3.10 (3.07 for white portland cement.) If the cement as received falls below this requirement a second test may be made upon an ignited sample.

The specific gravity test will not be made unless specifically ordered.

The residue on a Standard No. 200 sieve shall not exceed twenty-two percent of weight. A pat of neat cement shall remain firm and hard and show no signs of distortion, cracking, checking or disintegration in the steam test for soundness.

The cement shall not develop initial set in less than forty-five (45) minutes when the Vicat needle is used, or a sixty (60) minutes when the Gillmore needle is used. Final set shall be attained within ten (10) hours.

The average tensile strength in pounds per square inch of not less than three (3) standard Mortar Briquettes composed of one (1) part cement and three (3) parts standard sand, by weight, shall be equal to or higher than the following:

<u>Age at Test</u>	<u>Storage of Briquettes</u>	<u>Tensile Strength lbs.</u> <u>per Square Inch</u>
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7	1 day in moist air - 6 days in water	275
28	1 day in moist air - 27 days in water	350

The average tensile strength of standard mortar at 28 days shall be higher than the strength at 7 days. Only fresh new cement that has been stored in a specially prepared storage shed shall be used.

5. Fine Aggregate:

Fine aggregate shall be sand of clean, hard, durable grains and shall be uniformly graded from coarse to fine. All particles shall pass a 3/8-inch screen. 0 to 10 percent shall be retained on a screen of 1/4-inch openings, 25 to 65 percent shall be retained on a 20-mesh sieve, 75 to 95 percent shall be retained on a 59-mesh sieve, 90 to 100 percent shall be retained on a 100-mesh sieve. It shall contain not more than four percent by weight of silt or other foreign substance.

The engineer reserves the right to vary the grading within the limits given as may be rendered necessary in order to obtain a dense and staple mixture.

6. Coarse Aggregate:

Coarse aggregate shall be clean crushed washed gravel, broken stone or crushed blast furnace slag, uniformly graded from 100% passing a 1 1/2" screen and 95% retained on a 3/4-inch screen. Intermediate screen sizes shall not be removed.

7. Washed Gravel:

Washed gravel shall consist of clean, washed gravel, free from clay, loam or foreign substances. Gravel containing shale or soft tone, flat or elongated particles will not be accepted. The range of sizes shall conform within the following limits: 100% shall pass a 1 1/2" screen; 90 to 100% shall pass a 1" screen; 20 to 40% shall pass a 3/4" screen and not more than 5% shall pass a 1/4" screen.

8. Water for Use in Cement Concrete:

The amount of water used shall be from 4 to 6 gallons per sack of cement as the Engineer shall direct, but shall in no case exceed 6 gallons per sack. The water shall be clean, free from oil, acid, alkali or vegetable substances, and the tensile strength of 1:3 mortar shall be equal that developed with distilled water when mixed in the same proportion with the same cement and standard Ottawa sand.

9. Thickness and Proportion:

The walk shall be laid in one coarse construction to a thickness of not less than 4-inches. All blocks which will form parts of driveways or be subject to vehicle traffic, shall be not less than 6-inches in thickness. The concrete shall be mixed in a proportion of one part of cement to two parts of sand or fine aggregate and 3 1/2 parts of coarse aggregate, mixed together with necessary amount of water, which preferably shall be five gallons per sack of cement and in no case shall exceed six gallons per sack of cement. This water-cement ratio is very important in determining the strength of the concrete produced and should be strictly adhered to.

10. Concrete Mixing:

All ingredients of the concrete shall be accurately proportioned by the use of batch boxes to insure the exact amounts and proportions of the various ingredients. For this purpose one standard sack of cement shall be considered as one cubic foot, but sand and aggregates shall be shoveled into batch boxes and dumped from boxes into mixer. All concrete shall be mixed in an approved concrete batch mixer, which shall revolve not less than ten (10) revolutions per minute and shall be equipped with an accurate water measuring and proportioning tank, which can be set and adjusted to give the exact volume of water for each batch. Each batch of material shall be mixed for a period of not less than three (3) minutes and when dumped into the mixer shall be mixed dry before the water is added. When hand mixing is used ingredients shall be measured as above, placed in mixing box and turned over twice with shovels while dry. Then water shall be added and thoroughly mixed by means of hoe or other agitator.

11. Placing and Finishing:

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 has a true contour. Care shall be taken not to bring to the surface an excess of water and fine sand by overfinishing.

12. Jointing:

The walk shall be cut into separate rectangular slabs not greater than six (6) feet on any one side. The surface edges of each slab shall be rounded to a 1/4-inch radius. Markings shall be exactly at cuts between slabs.

13. Curing:

The concrete after being placed and finished shall be covered with damp burlap. This burlap shall be placed as soon as possible after the pouring of the concrete and in no case shall the time exceed 1- $\frac{1}{2}$  hours after the concrete is poured. This burlap shall completely cover all of the concrete and shall remain on the walk for a period of 72 hours, during which time it shall be sprinkled or kept wet at all times.

14. Backfilling at Edges of Walks:

After walk has been completed and the forms removed, the Contractor shall fill along the edge toward the street to a width of one (1) ~~ft~~ foot from the edge of the walk and shall slope from this point at a 1- $\frac{1}{2}$  to 1 slope to meet the existing ground. Contractor shall also fill dirt against the back side of the walk starting at the walk level and sloping it 1- $\frac{1}{2}$  to 1 slope to meet the existing ground. Payment for such filling shall be included in the price per square foot bid for walk and no extra or additional costs or payments shall be involved.

15. Engineering and Inspection:

Where walks are to be laid to grades furnished by the engineer, the contractor shall conform to the said line and grade. The line and grade shall be kept uniform and a variation of more than  $\frac{1}{4}$ " from either line or grade shall be considered sufficient cause for the rejection of the walk by the Borough officials and its replacement by the contractor of a walk conforming to the proper line and grade. The material or equipment used for the construction of walks by any firm, individual or contractor shall be at all times subject to inspection by the Borough officials and any such that does not conform to these specifications shall be rejected by the Borough and shall be replaced by the contractor at his own expense with material or equipment which does conform to these specifications.