AMERICAN SOCIETY OF MUNICIPAL IMPROVEMENTS, 1914; SPECIFICATIONS FOR SEWER CONSTRUCTION ADOPTED OCTOBER 8, 1914

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649345939

American Society of Municipal Improvements, 1914; Specifications for Sewer Construction Adopted October 8, 1914 by George W. Tillson

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

www.triestepublishing.com

GEORGE W. TILLSON

AMERICAN SOCIETY OF MUNICIPAL IMPROVEMENTS, 1914; SPECIFICATIONS FOR SEWER CONSTRUCTION ADOPTED OCTOBER 8, 1914

Trieste

American Society of Municipal Improvements, 1914

Specifications for

Sewer Construction

Adopted October 8, 1914

These specifications will be modified from time to time to keep them fully up to date. Suggestions as to modifications or additions are solicited and should be sent to the Secretary, or to E. J. Fort, Municipal Building, Brooklyn, N. Y., Chairman of the Sub-Committee on Specifications for Sewers, and

GEORGE W. TILLSON
Boro Hall, Brooklyn, N. Y.
Chairman of General Committee on Standard Specifications

PUBLISHED BY THE SOCIETY
CHARLES CARROLL BROWN, Secretary
702 WULSIN BUILDING
INDIANAPOLIS, INDIANA

Press of
S. E. Tate Printing Company
Manhattan Building
Milwaukee

Modifications of these Specifications made in 1915

REPORT OF SUB-COMMITTEE ON SPECIFICATIONS FOR SEWERS.

The sub-committee on Specifications for Sewers has further considered Articles 206 and 211 of its report, and the proposed amendments thereto, all of which were omitted from the Specifications for Sewer Construction, as adopted by the society at its last convention.

Article 206.—The amendment proposed by Mr. Parmley would materially reduce the specified thickness of reinforced concrete sewer pipes of large sizes. After careful consideration we are unable to recommend at this time the adoption of the dimensions proposed in the amendment. We also find the subject matter of the proposed amendment, covering the depth and details of socket and joint ends and of reinforcement material, is sufficiently covered by items of the specifications heretofore adopted.

We do, however, recommend that column 4 of Article 206, as proposed by the sub-committee, be omitted.

Article 211.—The amendment offered by Mr. Parmley proposes three different methods of applying crushing tests to reinforced cement concrete pipes, and specifies a different crushing load for each method. The sub-committee has considered these, and reached the opinion that proposed methods 1 and 2 are too complex, and hardly practicable, and that method 3, which substantially complies with the method proposed by the committee, specifies crushing loads which, in our opinion, are too low and unsafe.

The sub-committee has further considered Article 211 and has reached the additional conclusion, that the test pressures which the pipes shall withstand should be specified with more definiteness than at present. With this end in view it recommends the insertion of the words: "without collapse" before the words, "the following pressures," at the ends of both the first and second paragraphs of Article 211.

Otherwise, the committee recommends the adoption of Articles 206 and 211 as originally presented by it, with the omission of column 4 of tabular socket dimensions in Article 206.

Respectfully yours,

E. J. Fort, Chairman.
Rudolph Hering,
A. J. Provost.

SPECIFICATIONS FOR SEWER CONSTRUCTION.

TRENCHES.

Length of Trench.

1. Unless otherwise directed or permitted not more than ... feet of any trench in advance of the end of the built sewer shall be open at any time; and unless written permission to the contrary is given, the trench shall be excavated to its full depth for a distance of at least ... feet more than the minimum length of sewer permitted to be laid in it (see sections 152 and 158). Trenches for house connection drains shall not be open on both sides of the street at the same time, unless permission has previously been given to close the street. Unless otherwise directed, each trench for basin connections and house connection drains shall be fully excavated for its entire length before any pipes are laid therein.

Sheeting and Bracing.

2. Where necessary, the sides of the trenches and excavations shall be supported by adequate sheeting and bracing. Steel sheeting may be used only where shown on the plan or directed. Sheeting and bracing will be paid for only when left in place by written order, in which event the amount left in place will be paid for at the contract price for such material. Unless specially permitted, sheeting against which concrete is placed shall not be removed, but such sheeting will not be paid for unless ordered to be left in place to protect the sides of the trenches and excavations. The Contractor will be held accountable and responsible for the sufficiency of all sheeting and bracing used, and for all damage to persons or property resulting from the improper quality, strength, placing, maintaining or removing of the same.

Sheeting In Soft Material.

3. Where the material to be excavated is of such a character or other conditions are such as to render it necessary, the sheeting shall be closely driven and to such depth below the bottom of the sewer as may be directed.

Tunneling.

4. All work shall be done in open trenches or excavations, no tunneling shall be done except with the consent of the Engineer.

Trees and Stumps.

5. The Contractor shall grub and clear the surface over the trenches, and the excavations of all trees, stumps, stones and any other incumbrances affecting the prosecution of the work, and shall remove them from the site.

Material To Be Disinfected.

6. If required by the Engineer, any or all of the excavated material shall be satisfactorily disinfected or deodorized or immediately removed from the work.

Roadway, Sidewalks, Etc., To Be Kept Clear.

7. Unless permission is given to the contrary, the excavated material and materials of construction shall be so deposited, and the work shall be so conducted as to leave open and free for pedestrian traffic all crosswalks, a space on each sidewalk not less than one-third the width of the sidewalk and not less than 3 feet in width, and for vehicular traffic a roadway not less than 8 feet in width. All street hydrants, water gates, fire alarm boxes and letter boxes shall be kept accessible for use. Not more than ... linear feet of sidewalk shall be used at any time for storage of materials from any one trench. During the progress of the work the Contractor shall maintain such crosswalks, sidewalks and roadways in satisfactory condition, and the work shall at all times be so conducted as to cause a minimum of inconvenience to public travel, and to

permit safe and convenient access to private and public property along the line of the work.

Surplus Material.

8. If all of the excavated material cannot be stored on the street in such a manner as to maintain the traffic conditions hereinbefore specified, the surplus shall be removed from the work and stored. After the construction of the sewer, so much of this material as is of satisfactory quality and necessary for the purpose shall be brought back and used for backfilling the trench.

Material from first ... feet to be carted away.

9. Where directed, in built-up districts and in streets where traffic conditions render it necessary, the material excavated from the first ... feet of trenches shall be removed by the Contractor as soon as excavated, and the material subsequently excavated, if suitable for the purpose, shall be used to backfill the trenches in which the sewers have been built and neither the excavated material nor materials of construction shall be stored on the roadways or sidewalks.

Fence.

10. Where required by the Engineer, suitable fences shall be placed along the sides of the trenches to keep the streets safe for traffic.

Temporary Bridges.

11. Crosswalks, where intersected by trenches, shall if required be temporarily replaced by substantial timber bridges not less than 3 feet wide, with side railings. Where required, suitable temporary bridges for vehicles shall be provided and maintained across trenches.

Disposal of Water From Trenches.

12. The Contractor shall at all times during the progress of the work keep the trenches and excavations free from water. Water from the trenches and excavations shall be disposed of in such a manner as will neither cause injury to

the public health, nor to public or private property, nor to the work completed or in progress, nor to the surface of the streets, nor cause any interference with the use of the same by the public.

COST TO BE COVERED.

13. The cost of all labor required to be done and all materials required to be furnished in the performance of all of the work specified in paragraphs 1 to 12, inclusive, except as otherwise provided, shall be covered by all the contract prices for all the items for which there are contract prices.

EARTH EXCAVATION.

14. Earth excavation shall include the removal of all material other than rock as defined in sections 21 and 22.

WIDTH OF TRENCH FOR SEWERS, ETC.

15. The minimum widths of trenches in earth for pipe sewers, basin connections, house connection and other drains not over 18 inches in diameter, shall be such as to give a clearance of 8 inches on each side of the barrel of the pipe, and for those of larger diameters, of 10 inches on each side of the barrel of the pipe, and all such trenches shall have a clear width equal to the maximum widths of the cradles of the sewers to be laid in them, when such cradles are wider than the minimum widths hereinbefore specified. The minimum clear widths of trenches in earth for other sewers shall be the greatest external width of the structures, including the necessary forms, to be built therein.

EXCAVATION FOR MANHOLES, ETC.

16. Where a riser, manhole or other appurtenance or the foundation therefor extends beyond the exterior lines of the sewer or its foundation, the minimum excavation in earth required for the same shall be that contained in a prism with vertical sides and a horizontal section equal to the smallest