

SECTION 530 GALVANIZED METAL BIN-TYPE RETAINING WALLS

530.1 DESCRIPTION

This work consists of constructing metal bin-type retaining walls.

530.2 MATERIALS

- A. **Base Metal:** The base metal shall be copper steel meeting the requirements of chemical composition and zinc coating as specified in AASHTO M 218.
- B. **Wall Metal:** The various members of the wall shall be constructed of metal of the specified gage, but not less than 16 gage (1.6 mm).

530.3 CONSTRUCTION REQUIREMENTS

- A. Metal bin-type retaining walls shall consist of multiple pairs of columns, with one column of each pair being in the plane of the front and the other column being in the plane of the rear of the wall. The pairs of columns shall be spaced longitudinally with overlapping S-shaped or U-shaped facing and rear members (stringers) and transversely with overlapping U-shaped tie members (spacers). The necessary bolts and appurtenances shall be furnished for complete assembly of the units into a continuous closed face wall of connected bins.
- B. Units of the same nominal size shall be fully interchangeable. Drilling punching or drifting to correct defects shall not be permitted. Units with improperly punched holes shall be replaced. The ends of all stringers and spacers shall be bolted to corner columns by connecting channels.
- C. The proper curvature for the face of walls constructed on a curve shall be obtained by using shorter stringers in the front or rear panels of retaining walls as specified.
- D. The wall height and depth may be varied, but may not exceed the maximum dimension specified. Two or more designs of retaining walls may be incorporated in the same wall by the use of standard split columns to make the connection on the step-back.
- E. Rough excavation for the wall shall be made to the elevation of the finished ground line at the face of the wall. Below this point, trenches 18 inches (450 mm) in width shall be excavated for the four sides of the bin. The bearing at the corners of the bin shall be firm and to grade and must be approved prior to erection of the wall.
- F. Members which are damaged shall be removed and replaced.
- G. The filling of the interior of the bin and behind the wall shall progress simultaneously with the erection of the units. Backfill shall be placed in layers not to exceed six inches (150 mm) loose thickness and shall be satisfactorily tamped. Vegetable matter and unstable soil shall be excluded from the backfill. The puddling method of backfilling shall not be used.

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530.4 METHOD OF MEASUREMENT

The area of the metal bin-type retaining wall will be measured to the nearest in square foot (square meter) of front facial area.

The plan shown quantity will be the pay quantity unless changes are ordered on construction.

530.5 BASIS OF PAYMENT

Metal bin-type retaining walls will be paid for at the contract unit price per square foot (square meter) of front facial area. Payment will be full compensation for excavation, retaining wall erection and backfilling.