

SECTION S591 – SIDEWALK HATCH AND DRAINAGE CHANNEL COVER

S591 GENERAL

Work is to be in accordance with Section R591 Sidewalk Hatch, with following modifications:

S591-1 DESCRIPTION

At end of Section R591-1 Description, **ADD** following:

Work consists of installation of sidewalk drainage channel cover and construction of underlying concrete channel, as required in Contract Documents and as directed by Project Manager.

References to NYSDOT specifications are to be in accordance with latest edition of *NYSDOT Standard Specifications (US Customary Units)*.

S591-2 MATERIALS

At end of Section R591-2 Materials, **ADD** following:

Sidewalk drainage channel cover is to be AASHTO H-20 rated diamond pattern galvanized steel plate 20 inches wide in accordance with ASTM A36.

Frame is to be 2-1/2 x 2-1/2 x 1/2 inch galvanized angle, with 1/2 inch steel strip welded to top outer edge of angle, in accordance with ASTM A36

Wedge anchor bolts are to be 3/8 inch x 3-1/2 inch.

Metal screws are to be 1/4 inch coarse thread countersink screws.

Welding is to be in accordance with latest edition of *New York State Steel Construction Manual*, except that radiographic inspection will not be required.

Concrete for channel is to be Class K in accordance with Section S504 Portland Cement Concrete.

Subbase course material is to be Type 1 in accordance with NYSDOT Section 304 Subbase Course.

Recycled materials, pulverized or recycled portland cement concrete aggregate (RCA) and brick, reclaimed asphalt pavement (RAP), and Corian® are unacceptable for use as subbase course materials, unless specifically authorized in writing by City Engineer.

Expansion joint material is to be 1/2 inch thick premoulded expansion joint material.

S591-3 CONSTRUCTION DETAILS

At end of Section R591-3 Construction Details, **ADD** following:

Subbase course material, concrete for channel and expansion joint material are to be constructed in accordance with Section S608 Sidewalk and Driveway.

Sidewalk drainage channel cover is to be placed true to line and grade, and fastened to underlying frame. Suitable measures are to be taken to ensure that cover has continuous, full and uniform bearing contact with corresponding frame, and is to be non-rocking when in place and under influence of traffic or other loads. Suitable methods to achieve non-rocking fit between cover and corresponding frame will include, but not be limited to, following:

- ground mating surfaces
- machined and milled mating surfaces (horizontal and vertical)
- match marked elements
- locking elements

If match marked elements are utilized, care is to be taken to retain identity of elements in order to correctly match them and assure proper fit.

Field repairs may include grinding or proper welding techniques for material involved. Repairs are to result in complete unit whose individual parts have continuous, full and uniform bearing contact with each other, and that cover does not rock or move under influence of traffic or other loads.

Cover is to be fastened to underlying frame with countersink metal screws, making sure that all screws are completely tightened and unable to be loosened by hand.

Frame is to be anchored to surrounding concrete with wedge anchor bolts set in non-shrink grout.

S591-4 METHOD OF MEASUREMENT

At end of Section R591-4 Method of Measurement, **ADD** following:

Quantity to be measured for payment will be number of sidewalk drainage channel covers installed.

S591-5 BASIS OF PAYMENT

At end of Section R591-5 Basis of Payment, **ADD** following:

Unit price bid includes cost of: excavation; furnishing and installing subbase course material, concrete channel, expansion joint material, cover, frame, steel strip, wedge anchor bolts, countersink metal screws, non-shrink grout; welding; field repairs; and furnishing all labor, material and equipment necessary to complete work.

Payment will be made under:

Note: XXXX in bid item number represents size of each individual sidewalk drainage channel cover to be installed. i.e.: S591.101848 - 18" x 48" Sidewalk Drainage Channel Cover.

ITEM NO.	ITEM	PAY UNIT
S591.10XXXX	X" x X" Sidewalk Drainage Channel Cover	Each