

ITEM 587.0201 11 - BRIDGE RAILING REMOVAL AND STORAGE (FOUR-RAIL)  
ITEM 587.0202 11 - PEDESTRIAN RAILING REMOVAL AND STORAGE (ONE-RAIL)  
ITEM 587.0203 11 - PEDESTRIAN RAILING REMOVAL AND STORAGE (0.4 M HIGH)  
ITEM 587.0204 11 - PEDESTRIAN RAILING REMOVAL AND STORAGE (1.0 M HIGH)

ITEM 587.0301 11 - MODIFICATION AND REINSTALLATION OF STORED BRIDGE RAILING  
(FOUR-RAIL)  
ITEM 587.0302 11 - MODIFICATION AND REINSTALLATION OF STORED PEDESTRIAN  
RAILING (ONE-RAIL)  
ITEM 587.0303 11 - MODIFICATION AND REINSTALLATION OF STORED PEDESTRIAN  
RAILING (0.4 M HIGH)  
ITEM 587.0304 11 - MODIFICATION AND REINSTALLATION OF STORED PEDESTRIAN  
RAILING (1 M HIGH)

## **DESCRIPTION**

The work will consist of the following:

- The removal and storage of existing railing
- The modification and installation of stored railing

In addition to Section 587 – BRIDGE RAILING RECONSTRUCTION, of the Standard Specifications, the following requirements will be met.

## **MATERIALS**

Section 587-2 of the Standard Specifications shall apply.

## **CONSTRUCTION DETAILS**

### **Railing Removal**

The Contractor shall prepare a detailed work plan and drawings for railing removal and installation work, to be approved by the Engineer prior to commencing work. The work plan and drawing shall be submitted a minimum of two weeks prior to commencing work.

The bridge railing shall be removed between railing posts to remain, as shown on the plans. The railing posts to remain shall be located from 0.5m to 1.5m beyond the limits of new sign structure foundation construction. Where rails must be cut, for railing removal, rail cut lines shall be located 0.5m from centerline of posts to remain. Cutting shall be done in accordance with Section 601 of the New York State Steel Construction Manual (SCM).

### **Railing Storage**

Section 587-1.02 of the Standard Specifications shall apply.

### **Railing Modification**

The Contractor shall prepare shop drawings in accordance with Section 203 of the SCM for fabrication of all new railing posts and rails and for modifications to existing posts and rails other than straightening or in kind replacement.

The modification will include cutting rails, relocating posts, installing new posts, and reassembling rails as necessary to avoid new sign structure foundation base plates and anchor bolt construction.

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The existing anchorages shall be reused for anchoring new or modified railing. The contractor shall exercise care removing the railing so as not to damage the existing anchorages. All cutting work shall be done in accordance with the requirements of the SCM, Part 601, and when applicable, Part 602. The provisions of Section 589-3.01 of the Standard Specifications shall apply for the removal of any painted railing.

All welded appurtenances shall be carefully removed from the railing and any excess weld material ground flush with the base metal. Base metal shall not be removed. All bent elements shall be straightened and all broken or missing elements shall be repaired or replaced in kind, as determined by the Engineer.

Cleaning and painting work shall be performed in the shop in accordance with Subsection 572-3 of the Standard Specifications. Paint removal waste shall be treated and disposed of in accordance with Section 571 of the Standard Specifications.

### **Railing & Post Installation**

Installation of new and modified rails and posts shall be done in accordance with the following subsections: Section 568 - 3.01A, B, C, D, E, G, H, L and N of the Standard Specifications.

New and modified railing components shall be installed in accordance with the governing subsections of Section 568 of the Standard Specifications and in accordance with the approved shop drawings. Posts shall be set vertical. Cement mortar pads shall be constructed in accordance with Subsection 568-3.02 of the Standard Specifications.

Rails cut during disassembly shall be reconnected using complete penetration groove welds. Welds shall be ground flush. Field welding shall be performed in accordance with the SCM.

### **METHOD OF MEASUREMENT**

Removal and storage of bridge or pedestrian railing shall be measured as the number of linear meters of existing railing satisfactorily removed and stored, in accordance with the specifications and to the satisfaction of the Engineer.

Modification and reinstallation of stored bridge or pedestrian railing shall be measured as the number of linear meters of existing railing satisfactorily modified and reinstalled, in accordance with the specifications and to the satisfaction of the Engineer.

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**BASIS OF PAYMENT**

The unit price bid shall include the cost of furnishing all labor, materials and equipment necessary to complete the work. When required, mortar leveling courses, anchor bolts, nuts and washers shall be included in the unit price bid. The drilling and grouting of anchor bolts, when required will be paid in the unit price bid. Galvanizing or painting of the railing, if required, shall be paid in the unit price bid.

***Payment will be made under:***

<b>Item No.</b>	<b>Item</b>	<b>Pay Unit</b>
587.0201 11 M	Bridge Railing Removal and Storage (Four-Rail)	Meter
587.0202 11 M	Pedestrian Railing Removal and Storage (One-Rail)	Meter
587.0203 11 M	Pedestrian Railing Removal and Storage (0.4 M High)	Meter
587.0204 11 M	Pedestrian Railing Removal and Storage (1.0 M High)	Meter
587.0301 11 M	Modification and Reinstallation of Stored Bridge Railing (Four-Rail)	Meter
587.0302 11 M	Modification and Reinstallation of Stored Pedestrian Railing (One-Rail)	Meter
587.0303 11 M	Modification and Reinstallation of Stored Pedestrian Railing (0.4 M High)	Meter
587.0304 11 M	Modification and Reinstallation of Stored Pedestrian Railing (1.0 M High)	Meter