



**MATERIAL SPECIFICATION FOR  
CHANNEL COMPONENTS FOR STEEL BEAM GUIDE RAIL**

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**1505.01 SCOPE**

This specification covers the requirements for steel channel and installation hardware.

**1505.01.01 Specification Significance and Use**

This specification is written as a municipal-oriented specification. Municipal-oriented specifications are developed to reflect the administration, testing, and payment policies, procedures, and practices of many municipalities in Ontario.

Use of this specification or any other specification shall be according to the Contract Documents.

## **1505.01.02 Appendices Significance and Use**

Appendices are not for use in provincial contracts as they are developed for municipal use, and then, only when invoked by the Owner.

Appendices are developed for the Owner's use only.

Inclusion of an appendix as part of the Contract Documents is solely at the discretion of the Owner. Appendices are not a mandatory part of this specification and only become part of the Contract Documents as the Owner invokes them.

Invoking a particular appendix does not obligate an Owner to use all available appendices. Only invoked appendices form part of the Contract Documents.

The decision to use any appendix is determined by an Owner after considering their contract requirements and their administrative, payment, and testing procedures, policies, and practices. Depending on these considerations, an Owner may not wish to invoke some or any of the available appendices.

## **1505.02 REFERENCES**

When the Contract Documents indicate that municipal-oriented specifications are to be used and there is a municipal-oriented specification of the same number as those listed below, references within this specification to an OPSS shall be deemed to mean OPSS.MUNI, unless use of a provincial-oriented specification is specified in the Contract Documents. When there is not a corresponding municipal-oriented specification, the references below shall be considered to be the OPSS listed, unless use of a provincial-oriented specification is specified in the Contract Documents.

This specification refers to the following standards, specifications, or publications:

### **CSA Standards**

G164-18	Hot Dip Galvanizing of Irregularly Shaped Articles
S136-16 (R2021)	Cold-Formed Steel Structural Members

### **ASTM International**

A 307-21	Carbon Steel Bolts, Studs, and Threaded Rod 60,000 PSI Tensile Strength
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## **1505.05 MATERIALS**

### **1505.05.01 Cold Rolled Channel**

Channels shall be cold rolled steel sections according to CSA S136 and have a minimum yield strength of 345 MPa. After fabrication, sections shall be hot dip galvanized according to CSA G164.

### **1505.05.02 Installation Hardware**

All bolts, nuts, and washers shall be according to ASTM A307 and be hot dip galvanized according to CSA G164.

**1505.07                      PRODUCTION**

**1505.07.01                      Fabrication Tolerances and Workmanship**

Bolt holes in steel channels shall be perpendicular to the surface and shall not deviate more than 1.0 mm in any direction from the true location. Steel channel ends shall be cut square.

After fabrication, curved steel channels shall be hot dip galvanized according to CSA G164.

**1505.07.02                      Marking**

As a minimum, each steel channel section shall be marked with the following information:

- a) Name, trademark, or brand of the manufacturer.
- b) Standard designation 1505.
- c) Identification symbols or code for heat.
- d) Week number and year of production.

Markings shall be clearly and permanently stamped in the valley of the steel channel, placed at a location clear of the splice overlap, and shall not be obscured after installation. The height of the letters and numerals shall be within the range of 19 to 32 mm.

**1505.09                      OWNER PURCHASE OF MATERIAL**

**1505.09.01                      Measurement and Payment**

For measurement purposes, a count shall be made of the number of steel channel sections delivered and accepted.

Installation hardware shall be measured in the units specified in the purchasing order, delivered and accepted.

Payment at the price specified in the purchasing order shall be for the supply of steel channels and installation hardware delivered to the destination or destinations at the dates and times specified.

The cost of all testing, except that performed in the Owner's laboratory, shall be included in the price.

**Appendix 1505-A, November 2022  
FOR USE WHILE DESIGNING MUNICIPAL CONTRACTS**

**Note:** This is a non-mandatory Commentary Appendix intended to provide information to a designer, during the design stage of a contract, on the use of the OPS specification in a municipal contract. This appendix does not form part of the standard specification. Actions and considerations discussed in this appendix are for information purposes only and do not supersede an Owner's design decisions and methodology.

**Designer Action/Considerations**

The designer should ensure that the General Conditions of Contract and the 100 Series General Specifications are included in the Contract Documents.

**Related Ontario Provincial Standard Drawings**

OPSD 912.102      Guide Rail System, Steel Beam, Channel, Component