



**CONSTRUCTION SPECIFICATION FOR  
PERMANENT INTERMEDIATE SIGNS AND SUPPORT SYSTEMS**

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**709.01 SCOPE**

This specification covers the requirements for the installation and removal of permanent intermediate signs and support systems, and the relocation of intermediate signs.

**709.01.01 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.

## **709.01.02 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.

## **709.02 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:

### **Ontario Provincial Standard Specifications, Construction**

OPSS 501      Compacting

### **Ontario Provincial Standard Specifications, Material**

OPSS 2001      Signs

### **Ontario Ministry of Transportation Publications**

Ontario Traffic Manual (OTM):  
Book 1B - Sign Design Principles

### **ASTM International**

A 123/A 123M-17	Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
A 153/A 153M-16	Zinc Coating (Hot-Dip) on Iron and Steel Hardware
A 780/A 780M-09 (2015)	Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings

## **709.03 DEFINITIONS**

For the purpose of this specification, the following definitions apply:

**Intermediate Sign Assembly** means one or more plywood sign boards with a total area not greater than 7.2 m<sup>2</sup> mounted on a metal post breakaway sign support system with specified sign hardware.

**Relocation** means to move an existing permanent sign to a new chainage or offset or both.

**Removal** means to remove and dispose of an existing permanent sign or support system or both.

**Sign Board** means a traffic control device mounted on a fixed support that conveys a specific message by means of symbols and or words, and is officially installed for the purpose of regulating, warning, informing, and guiding traffic.

**Sign Hardware** means hardware including, but not limited to, nuts, bolts, washers, spacers, and lock washers for attaching sign boards to sign support systems.

**Sign Support System** means a steel post of specified dimensions, hardware, and material embedded vertically into the ground for mounting sign boards at a specified height above the roadway and ground. The system may consist of a single, double, or triple post configuration.

## **709.05 MATERIALS**

### **709.05.01 General**

A sign support system shall be used for each intermediate sign assembly installation as specified in the Contract Documents.

New sign boards shall be supplied as specified in the Contract Documents.

### **709.05.02 Metal Posts and Components**

All supplied metal posts, bolts, washers, keeper plates, and nuts shall be according to the manufacturer's specifications and as specified in the Contract Documents.

All metal posts shall be hot dip galvanized after fabrication according to ASTM A 123.

All sign hardware shall be hot dip galvanized according to ASTM A 153.

### **709.05.03 Signs**

Signs shall be according to OPSS 2001.

## **709.07 CONSTRUCTION**

### **709.07.01 General**

Intermediate sign support systems shall be installed as specified in the Contract Documents and according to the manufacturer's instructions at locations specified in the Contract Documents. Installers shall be trained by the manufacturer's direct representative.

All sign boards shall be installed according to OTM Book 1B and as specified in the Contract Documents.

All sign boards shall be installed, relocated, or removed at locations specified in the Contract Documents. Sign boards shall be installed so that they do not obstruct and are not obstructed by existing permanent sign boards or other objects. The Contract Administrator shall be notified prior to installation of sign supports if it is not possible to install a new or relocated sign board as specified in the Contract Documents due to this requirement.

Sign boards shall be covered temporarily for traffic operational reasons when directed by the Contract Administrator. Sign boards shall be covered so they are not visible to approaching motorists. The cover shall remain securely in place until the sign boards are appropriate for display as directed by the Contract Administrator. The covering material shall not damage or make any marks on the sign boards.

Acceptable material from post hole excavation shall be used as backfill around posts and compacted according to OPSS 501.

Posts shall be plumb within a tolerance of  $\pm 20$  mm. The sign board shall be levelled on a two-post system within a tolerance of  $\pm 10$  mm.

Damaged and cut areas of hot dip galvanized coatings on any galvanized components shall be repaired according to ASTM A 780.

### **709.07.02 Sign Board Supply**

Sign boards shall be supplied by the Owner or by the Contractor as specified in the Contract Documents.

#### **709.07.02.01 Owner Supplied Sign Boards**

##### **709.07.02.01.01 Sign Board Ordering**

The Contractor shall submit a list of sign boards required for this Contract to the Contract Administrator. The list of sign boards shall contain the quantity and details of the sign boards and the date for pick up by the Contractor. The list of sign boards shall be submitted a minimum of 12 weeks prior to the pickup date.

##### **709.07.02.01.02 Sign Board Pickup**

The Contractor shall pickup all the ordered sign boards on the list of required sign boards at a location provided in the Contract Documents to be supplied by the Owner within 10 Business Days of receiving notice from the Contract Administrator that the sign boards are ready for pickup. The Contractor shall ensure that all sign boards are safely secured and packaged prior to transporting the sign boards.

##### **709.07.02.01.03 Sign Board Confirmation and Inspection**

The Contractor shall within 5 Business Days confirm in writing with the Contract Administrator that all the ordered sign boards were received in accordance with the list of required sign boards. The Owner shall be notified of any incorrect sign boards identified by the Contractor. The Contractor shall be responsible for the cost of replacing all damaged, missing, and incorrect sign boards subsequent to the Contractor's order confirmation.

**709.07.02.02 Contractor Supplied Sign Boards**

The Contractor shall supply all sign boards as specified in the Contract Documents.

**709.07.03 New Sign Boards**

New sign boards shall be attached to new sign support systems with sign hardware as specified in the Contract Documents.

**709.07.04 Relocation of Sign Boards**

Relocated sign boards shall be attached to new support systems with sign hardware as specified in the Contract Documents. No portion of the existing sign board, support system, and sign hardware shall be left at the original sign location and any excess material including support system and sign hardware shall be managed as specified in the Contract Documents or as directed by the Contract Administrator.

**709.07.05 Removal of Sign Boards**

No portion of the removed sign board, support system, and sign hardware shall be left at the original sign location.

**709.07.06 Management of Excess Material**

Management of excess material shall be according to the Contract Documents.

**709.09.0 MEASUREMENT FOR PAYMENT**

**709.09.01 Actual Measurement**

**709.09.01.01 Intermediate Signs, Ground Mounted, New**

For measurement purposes, a count shall be made of the number of new intermediate sign assemblies installed.

**709.09.01.02 Intermediate Signs, Relocation**

For measurement purposes, a count shall be made of the number of intermediate sign assemblies relocated.

**709.09.01.03 Intermediate Signs, Removal**

For measurement purposes, a count shall be made of the number of intermediate sign assemblies removed.

**709.09.02 Plan Quantity Measurement**

When measurement is by Plan Quantity, such measurement shall be based on the units shown in the clause under Actual Measurement.

**709.10.0 BASIS OF PAYMENT**

- 709.10.01 Intermediate Signs, Ground Mounted, New - Item**
- Intermediate Signs, Relocation - Item**
- Intermediate Signs, Removal - Item**

Payment at the Contract price for the above tender items shall be full compensation for all labour, Equipment, and Material to do the work.

Costs associated with any required repairs or removals and replacements of defective materials shall be the Contractor's responsibility at no additional cost to the Owner.

**Appendix 709-A, November 2018  
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 specify the following in the Contract Documents:

- New sign boards material requirements. (709.05.01)
- Locations of sign boards to be installed, relocated, or removed. (709.07.01)
- If sign boards are to be supplied by the Owner or by the Contractor. (709.07.02)
- Location of sign board pickup. (709.07.02.01.02)

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 992.101 Intermediate Sign Support System, Slip-Safe Supreme Rib-Bak Breakaway System, Components
- OPSD 992.210 Intermediate Sign Support System, Slip-Safe Supreme Rib-Bak Breakaway System, Installation – Double Post Assembly