



**CONSTRUCTION SPECIFICATION FOR
BAFFLES IN A CULVERT**

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824.01 SCOPE

This specification covers the requirements for the construction of baffles in culverts using streambed material to direct the flow of water within the culverts and to enhance fish passage through the culverts.

824.01.01 Specification Significance and Use

This specification is written as a provincial-oriented specification. Provincial-oriented specifications are written to reflect the administration, testing, and payment policies, procedures, and practices of the Ontario Ministry of Transportation.

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

824.01.02 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.

824.02 REFERENCES

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

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

Ontario Provincial Standard Specifications, Construction

OPSS 517 Dewatering

Ontario Provincial Standard Specifications, Materials

OPSS 1005 Aggregates - Streambed Material

824.03 DEFINITIONS

For the purpose of this specification, the definitions in OPSS 182 and the following definitions apply:

Baffle means one or a series of partial obstructions in a channel designed to increase flow depth or dissipate the energy of water flowing at high velocity while at the same time providing fish passage.

Culvert means a structure that provides an opening through an embankment and to which roadway loads are distributed through fill or that is designated as a culvert in the Contract Documents.

Low Flow Channel means the part of a streambed occupied by water during periods of low flow.

Streambed Material means as defined by OPSS 1005.

824.05 MATERIALS

824.05.01 Streambed Material

Streambed material used to construct baffles in a culvert shall be according to OPSS 1005 and as specified in the Contract Documents.

824.07 CONSTRUCTION

824.07.01 General

All baffles shall be constructed in the dry.

824.07.02 Baffles in a Culvert

Baffles shall be installed in a culvert to be a permanent feature within the culvert as specified in the Contract Documents.

When the construction of the baffles in a culvert is complete and the waterbody flow has been reinstated, streambed material placement shall be adjusted by hand to achieve the design specified in the Contract Documents.

The baffles in a culvert shall be monitored after installation is complete to verify that the grade and transition of flow to the low flow channel within the culvert does not present any barriers to fish passage.

The placement of streambed material shall be adjusted to rectify any barriers to fish passage.

824.07.03 Protection of Waterbodies and Waterbody Banks

Protection of waterbodies and waterbody banks shall be according to the Contract Documents.

824.07.04 Dewatering and Temporary Flow Control

Dewatering and/or temporary flow control shall be according to OPSS 517.

824.07.05 Management of Excess Materials

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

824.09 MEASUREMENT FOR PAYMENT

824.09.01 Actual Measurement

824.09.01.01 Baffles in a Culvert

For measurement purposes, a count shall be made of the number of baffles installed in a culvert.

824.09.02 Plan Quantity Measurement

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

824.10

BASIS OF PAYMENT

824.10.01

Baffles in a Culvert - Item

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