



CONSTRUCTION SPECIFICATION FOR LARGE WOODY DEBRIS

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811.01 SCOPE

This specification covers the requirements for the installation of large woody debris to provide and improve fish habitat on streambeds and waterbody banks.

811.01.01 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.

811.01.02 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.

811.02 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 206 Grading
OPSS 517 Dewatering

Ontario Provincial Standard Specifications, Material

OPSS 1004 Aggregates - Miscellaneous

811.03 DEFINITIONS

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

Backfill Stone means a stone mixture used to hold in place large woody debris installed at the toe of a waterbody bank.

Excavated Bank Material means the existing earth material removed from the waterbody bank prior to the installation of large woody debris and replaced on top of the backfill stone when backfilling the installation.

Large Woody Debris means one or more woody materials including, natural logs, tree trunks and limbs, or tree stumps with rootfans intertwined together and applied along the toe of a waterbody bank when the toe of the waterbody bank is being eroded and includes backfill stone.

Rootfan means the root mass at the end of the trunk of a tree.

811.05 MATERIALS

811.05.01 Large Woody Debris

Large woody debris materials shall be sized as specified in the Contract Documents.

Preference shall be given to wood debris and dead trees sourced on-site.

811.05.02 Backfill Stone

Backfill stone shall be pit run material according to OPSS 1004 and as specified in the Contract documents. Alternatively, previously excavated waterbody bank material may be used if specified in the Contract Documents.

811.07 CONSTRUCTION

811.07.01 General

Large woody debris shall be installed in the dry.

Adjacent to, but not within the installation area, the large woody debris shall be intertwined to create a mass, sized as specified in the Contract Documents.

811.07.02 Installation

Installation of large woody debris shall be completed in the following sequence:

- a) The installation area shall be excavated as specified in the Contract Documents. Excavated material shall be reused for the final layer when backfilling.
- b) The large woody debris shall be intertwined together to create a mass. The mass shall be placed in the excavation, ensuring that the large woody debris is situated in an irregular fashion as specified in the Contract Documents. The large woody debris mass shall extend to the back of the excavation and also extend into the waterbody as specified in the Contact Documents.
- c) The large woody debris shall be covered with backfill stone as specified in the Contract Documents and tamped down. The backfill stone shall be covered with a layer of the previously excavated bank material and graded according to OPSS 206.
- d) Vegetative cover shall be applied to the graded area as specified in the Contract Documents.

811.07.03 Protection of Waterbodies and Waterbody Banks

Protection of waterbodies and waterbody banks shall be as specified in the Contract Documents.

811.07.04 Dewatering and Temporary Flow Control

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

811.07.05 Management of Excess Materials

Management of excess materials shall be as specified in the Contract Documents.

811.09 MEASUREMENT FOR PAYMENT

811.09.01 Actual Measurement

811.09.01.01 Large Woody Debris

Measurement of large woody debris shall be in linear metres, in place, as measured along the top of the waterbody bank.

811.09.02 Plan Quantity Measurement

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

811.10 BASIS OF PAYMENT

811.10.01 Large Woody Debris - 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.