
**Administration and Inspection Activities for
Site Restoration Following Installation of Pipelines, Utilities,
and Associated Structures**

492.01 SCOPE

This CAIS covers the construction administration and inspection requirements for the restoration of a site following installation of pipelines, utilities, and associated structures as specified in OPSS 492, November 2018.

492.02 REFERENCES

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

Ontario Provincial Standard Specifications, Construction:

OPSS 492 Site Restoration Following Installation of Pipelines, Utilities, and Associated Structures

Construction Administration and Inspection Specifications (CAIS):

CAIS 180	Management of Excess Materials
CAIS 206	Grading
CAIS 304	Single and Double Surface Treatment
CAIS 313	Hot Mix Asphalt - End Result
CAIS 314	Untreated Granular, Subbase, Base, Surface Shoulder, and Stockpiling
CAIS 350	Concrete Pavement and Concrete Base
CAIS 351	Concrete Sidewalk
CAIS 353	Concrete Curb and Gutter Systems
CAIS 490	Site Preparation for Pipelines, Utilities, and Associated Structures
CAIS 721	Steel Beam Guide Rail and Cable Guide Rail
CAIS 771	Standard Highway Fence
CAIS 772	Chain-Link Fence
CAIS 802	Topsoil
CAIS 803	Vegetative Cover
CAIS 1010	Aggregates - Base, Subbase, Select Subgrade, and Backfill Material
CAIS 1540	Standard Highway Fence Components
CAIS 1541	Chain-Link Fence Components
CAIS 1601	Wood - Material, Preservative Treatment, and Shop Fabrication

492.03 DEFINITIONS

For the purpose of this CAIS, the definitions shall be as specified in OPSS 492.

492.04 DESIGN AND SUBMISSION REQUIREMENTS – Not Used

492.05 MATERIALS

492.05.01 Granular Materials

As specified in CAIS 1010.

492.05.03 Electric Fence Wire

Inspection Activities:

1	-	Check that electric fence wire is 2 mm diameter hot dipped galvanized wire as specified in in the OPSS Clause 492.05.03.	25%
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492.05.04 Wood Fence

As specified in CAIS 1601.

492.05.04.01 Board or Split Rail Fence

Inspection Activities:

1	-	Check that posts and boards are the same size and type as used in the original fence as specified in the OPSS Clause 492.05.04.01.	25%
2	-	Check that rails are split cedar in good condition and of adequate lengths to build either a straight or snake fence as specified in in the OPSS Clause 492.05.04.01.	25%

492.05.04.02 Wood Braces for Wire Fence

As specified in CAIS 1540.

492.05.05 Highway Fence

As specified in CAIS 1540.

492.05.06 Steel Posts

As specified in CAIS 1540.

492.05.07 Chain-Link Fence

As specified in CAIS 1541.

492.05.08 Gates

As specified in CAIS 1540 and CAIS 1541.

Inspection Activities:

1	-	Check that gates are fabricated from material suitable to the fence on either side of the gate opening as specified in the OPSS Clause 492.05.08, OPSS 1540, and OPSS 1541	25%
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492.05.09 Guide Rail

As specified in CAIS 721.

492.05.10 Concrete

As specified in CAIS 351 and CAIS 353.

492.06 EQUIPMENT – Not Used**492.07 CONSTRUCTION****492.07.01 General**

Inspection Activities:

1	-	Check that all disturbed areas are restored to an equivalent or better condition than existed prior to the commencement of construction as specified in the OPSS Clause 492.07.01.	25%
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492.07.02 Grading

As specified in CAIS 206.

Inspection Activities:

1	-	Check that rough grading is performed to the levels, grades, and contours as specified in the Contract Documents and the OPSS Clause 492.07.02.	25%
2	-	Check that soil is not disturbed within the drip line of trees and shrubs during grading as specified in the OPSS Clause 492.07.02.	25%
3	-	Check that final grading is performed to the lines and elevations specified in the contract documents, OPSS 206 and the OPSS Clause 492.07.02.	25%

492.07.03 Roadway Restoration

Inspection Activities:

1	-	Check that the restoration of the roadway is scheduled to follow closely behind trench backfilling as specified in the OPSS Clause 492.07.03.	25%
2	-	Check that the roadway is made and maintained safe for the passage of vehicular and pedestrian traffic after completion of backfilling and until permanent restoration takes place, as specified in the Contract Documents and the OPSS Clause 492.07.03.	25%
3	-	Check that the granular subbase and base courses of the type specified in the contract documents are placed on the prepared subgrade to the dimensions specified in the Contract Documents and OPSS 314	25%
4	-	Check that the surface course of the type specified in the contract documents is placed on the prepared base course to the dimensions specified in the contract documents and the OPSS Clause 492.07.03.	25%

492.07.04 Fences and Guide Rails

Inspection Activities:

1	-	Check that fences and guide rails are restored in a manner that meets the requirements specified in the above clause and contract documents	25%
2	-	Check that posts for fences other than highway and chain-link fences are installed to the spacing that existed prior to construction as specified in the above clause	25%
3	-	Check that the manner of installation and the properties of gates meet the requirements specified in the above clause	25%
4	-	Check that the colour and finish material of the restored fence match the existing colour scheme and finish material and that two coats of finish material are applied where required, as specified in the above clause	25%

492.07.05 Topsoil

Inspection Activities:

1	-	Check that topsoil is obtained in a manner that meet the requirement specified in the OPSS Clause 492.07.05 and OPSS 490.	25%
2	-	Check that the quality of the topsoil and the construction methods for placing topsoil meet the requirements as specified in the OPSS Clause 492.07.05 and OPSS 802.	25%
3	-	Check that stockpile sites within or adjacent to the project limits are restored to the original condition	25%

492.07.06 Shrub and Tree Replanting

Inspection Activities:

1	-	Check that shrubs and trees are replanted as specified in the Contract Documents.	100%
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492.07.07 Vegetative Cover

As specified in CAIS 803

Inspection Activities:

1	-	Check that lawns and grassed areas are sodded or seeded as specified in the Contract Documents.	100%
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492.07.08 Sidewalk and Concrete Curb and Gutter Systems

As specified in CAIS 351 and CAIS 353

Inspection Activities:

1	-	Check that concrete sidewalk is placed and in a manner that meets the requirements specified in the OPSS Clause 492.07.08 and OPSS 351. Check that damaged sections are removed as specified.	25%
2	-	Check that the concrete curb and gutter systems are placed and in a manner that meets the requirements specified in the OPSS Clause 492.07.08 and OPSS 353. Check that damaged sections are removed as specified.	25%
3	-	Check that the placement of Granular A meets the requirements specified in the OPSS Clause 492.07.08 and OPSS 314.	25%

490.07.09 Management of Excess Material

As specified in CAIS 180.

492.08 QUALITY ASSURANCE – Not Used**492.09 MEASUREMENT FOR PAYMENT – Not Used**

492.10**BASIS FOR PAYMENT**

Administrative Activities:

1	-	Payment shall be as specified in OPSS 492	-
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WARRANT: Always with OPSS 492, Construction Specification for Site Restoration Following Installation of Pipelines, Utilities, and Associated Structures