



CONSTRUCTION SPECIFICATION FOR SITE RESTORATION FOLLOWING INSTALLATION OF PIPELINES, UTILITIES, AND ASSOCIATED STRUCTURES

TABLE OF CONTENTS

492.01	SCOPE
492.02	REFERENCES
492.03	DEFINITIONS
492.04	DESIGN AND SUBMISSION REQUIREMENTS - Not Used
492.05	MATERIALS
492.06	EQUIPMENT - Not Used
492.07	CONSTRUCTION
492.08	QUALITY ASSURANCE - Not Used
492.09	MEASUREMENT FOR PAYMENT - Not Used
492.10	BASIS OF PAYMENT

492.01 SCOPE

This specification covers the requirements for the restoration of a site following installation of sanitary and storm pipe sewers, pipe culverts and end sections, forcemains and associated appurtenances, watermains and associated appurtenances, and other underground Utilities; maintenance holes, catch basins, ditch inlets, or valve chambers; and any other specified subsurface construction.

492.02 REFERENCES

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

Ontario Provincial Standard Specifications, Construction

OPSS 206	Grading
OPSS 304	Single and Double Surface Treatment
OPSS 313	Hot Mix Asphalt - End Result
OPSS 314	Untreated Granular, Subbase, Base, Surface Shoulder, and Stockpiling
OPSS 350	Concrete Pavement and Concrete Base

OPSS 351	Concrete Sidewalk
OPSS 353	Concrete Curb and Gutter Systems
OPSS 490	Site Preparation for Pipelines, Utilities, and Associated Structures
OPSS 721	Steel Beam Guide Rail and Cable Guide Rail
OPSS 771	Standard Highway Fence
OPSS 772	Chain-Link Fence
OPSS 802	Topsoil
OPSS 803	Vegetative Cover

Ontario Provincial Standard Specifications, Material

OPSS 1010	Aggregates - Base, Subbase, Select Subgrade, and Backfill Material
OPSS 1540	Standard Highway Fence Components
OPSS 1541	Chain-Link Fence Components
OPSS 1601	Wood - Material, Preservative Treatment, and Shop Fabrication

Canadian General Standards Board (CGSB)

138.2 - 2019 Steel Framework for Chain Link Fence

492.03 DEFINITIONS

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

Associated Appurtenances means structures, devices, and appliances, other than pipe and conduit, which are used in connection with a water distribution system, such as valves, hydrants, corporation cocks, services, and thrust restraints.

492.05 MATERIALS

492.05.01 Barbed Wire

Barbed wire shall be according to CAN/CGSB-138.2.

492.05.02 Chain-Link Fence

Chain-link fence material shall be according to OPSS 1541.

492.05.03 Concrete

Concrete for sidewalks shall be according to OPSS 351.

Concrete for curb and gutter shall be according to OPSS 353.

Concrete for pavement shall be according to OPSS 350.

492.05.05 Gates

Gates shall be fabricated from material suitable to the fence on either side of the gate opening. Material for highway fence gates shall be according to OPSS 1540. Material for chain-link fence gates shall be according to OPSS 1541.

492.05.06 Granular Materials

Granular materials shall be according to OPSS 1010.

492.05.07 Guide Rail

Guide rail material shall be according to OPSS 721.

492.05.08 Highway Fence

Highway fence material shall be according to OPSS 1540.

492.05.09 Steel Posts

Steel posts shall be according to OPSS 1540.

492.05.10 Wood Fence

492.05.10.01 General

Wood fence material shall be according to OPSS 1601.

492.05.10.02 Board or Split Rail Fence

Posts and boards shall match the size and type as used in the original fence.

Rails shall be split cedar in good condition and of adequate lengths to build either a straight or snake fence.

492.05.10.03 Wood Braces for Wire Fence

Diagonal wood braces shall be according to OPSS 1540.

492.07 CONSTRUCTION

492.07.01 General

All disturbed areas shall be restored to an equivalent or better condition than existed prior to the commencement of construction.

492.07.02 Grading

Rough grading shall be performed to the levels, grades, and contours as specified in the Contract Documents allowing for the placement of surface materials. Soil shall not be disturbed within the drip line of trees and shrubs during grading.

Final grading shall be performed to the lines and elevations specified in the Contract Documents. The final grading shall be according to OPSS 206.

492.07.03 Roadway Restoration

The restoration of the roadway shall be scheduled to follow closely behind trench backfilling. The roadway shall be 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.

Granular subbase and base courses as specified in the Contract Documents, shall be placed on the prepared subgrade. Placement shall be to the dimensions specified in the Contract Documents and according to OPSS 314.

The surface course of the type specified in the Contract Documents shall be placed on the prepared base course to the dimensions specified in the Contract Documents according to the following:

- a) Asphalt pavement shall be according to OPSS 313 and as specified in the Contract Documents.
- b) Concrete pavement or concrete base shall be not less than 150 mm in thickness and shall be according to OPSS 350.
- c) Gravel surface courses shall be according to OPSS 314.
- d) Surface treatment shall be according to OPSS 304.

492.07.04 Fences and Guide Rails

Fences and guide rails shall be restored with the same type of fence or guide rail that existed prior to construction along the lines and levels specified in the Contract Documents. A clearance of 40-75 mm from the ground level to the bottom wire edge shall be maintained.

The installation of highway fence shall be according to OPSS 771.

The installation of chain-link fence shall be according to OPSS 772.

Posts for fences other than highway and chain-link fences shall be installed to the spacing that existed prior to construction.

Gates shall be installed at the same location and height as the gates that existed prior to construction. Gate size shall be according to the dimensions of the gate that existed prior to construction. Gates shall be secured with fittings to match the fence complete with latches, hinges, stops, and all necessary fittings.

Colour and finish material of the restored fence shall match the existing colour scheme and finish material. Where required, two coats of finish material shall be applied.

The construction of guide rails shall be according to OPSS 721.

492.07.05 Topsoil

Topsoil shall be placed after final grading operations have been completed and immediately prior to seeding or sodding operations. Topsoil shall be obtained from stockpiles prepared according to OPSS 490 or, if the required quantity is not obtainable from stockpiles, the required topsoil shall be imported.

The quality of the topsoil and the construction methods for placing topsoil shall be according to OPSS 802. Stockpile sites within or adjacent to the Contract limits shall be restored to the original condition or to a condition acceptable to the Contract Administrator.

492.07.06 Shrub and Tree Replanting

Shrubs and trees shall be replanted as specified in the Contract Documents.

492.07.07 Vegetative Cover

Lawns and grassed areas shall be sodded or seeded as specified in the Contract Documents.

Sodding and seeding shall be according to OPSS 803.

492.07.08 Sidewalk, and Concrete Curb and Gutter Systems

Concrete sidewalk shall be placed according to OPSS 351. Alignment and dimensions shall match existing sidewalk on either end of the restored sidewalk. Damaged sections of any sidewalk slab shall be removed and replaced to the nearest joint on either end of the damaged section.

Concrete curb and gutter systems shall be placed according to OPSS 353. Alignment and dimensions shall match the existing curb and gutter systems on either side of the restored curb and gutter. Damaged sections of curb and gutter shall be removed and replaced to the nearest joint or neat saw cut.

Placement of Granular A shall be according to OPSS 314. with a minimum depth of 100 mm as a base for the curb and gutter and sidewalk.

492.07.09 Management of Excess Material

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

492.10 BASIS OF PAYMENT

Payment for the site restoration following installation of pipelines, Utilities, and associated structures shall be at the Contract price for the appropriate tender items for the installation of sanitary and storm pipe sewers, pipe culverts and end sections, forcemains and associated appurtenances, watermains and associated appurtenances, and other underground utilities; maintenance holes, catch basins, ditch inlets, or valve chambers; and any other specified subsurface construction.

When the Contract contains separate items for work required by this specification, payment shall be at the Contract prices and according to the specifications for such work.