B916 - PRECAST CONCRETE BRIDGE ELEMENTS - OPSS 916
(As specified in OPSS 916 November 2025)

916.1 GENERAL

This work is for the fabrication, delivery and installation of precast concrete bridge elements.

916.2 REFERENCES

- Canadian Highway Bridge Design Code (CHBDC), CSA-S6
- OPSS 1355 - Material Specification for Precast Concrete - Materials and Production
- MTO Publication - Structural Manual

916.3 TENDER ITEMS

Item Code	Title	Col Type	U.O.M.	PQP
0916-0010	Precast Concrete Bridge Elements, Fabrication	Normal	LS/m^3	N
0916-0020	Precast Concrete Bridge Elements, Delivery	Normal	LS/m^3	N
0916-0030	Precast Concrete Bridge Elements, Installation	Normal	LS/m^3	N

916.4 SPECIFICATIONS

The construction requirements for above tender items are contained in OPSS 916.

Material requirements for the above tender items are contained in OPSS 1355.

916.5 SPECIAL PROVISIONS - None

916.6 STANDARD DRAWINGS

Applicable standard drawings are contained in the Structural Standard Drawings (SSD), and the 3000 series of the Ontario Provincial Standards Drawings (OPSD) and Ministry of Transportation Ontario Drawings (MTOD).

Standard Drawings and Notes to Designer can be found in the MTO SSD Manual available on MTO's Technical Publications website under the title "SSD Complete Manual", Changes and updates of Structural Standard drawings information about new and archived drawings are listed in "SSD Revision Sheet All-Rex" and available on MTO's Technical Publications website.

916.7 DESIGN

Design shall be according to the Structural Manual and SSDs for standard details and exceptions to the Canadian Highway Bridge Design Code (CHBDC), CSA S6.

Design requirements for precast concrete bridge elements are contained in Canadian Highway Bridge Design Code (CHBDC), CSA S6 and the Structural Manual.

916.8 COMPUTATION

916.8.1 Item Payment Basis

Precast concrete bridge elements are Lump Sum items.

916.8.2 Sources of Information

Information on the requirements for precast concrete bridge elements can be found in OPSS 916 and OPSS 1355.

916.8.3 Method of Calculation

The unit of measurement for the precast concrete bridge elements items is LS. The quantities are calculated based on the number of precast concrete bridge elements. The quantities are calculated for cost estimating purposes only and do not form part of the Tender. In the Tender, the items are Lump Sum (LS) with a quantity of 100%.

916.9 DOCUMENTATION

916.9.1 Contract Drawings

The designer shall include the pertinent information provided by the Structures Office or Regional Structural Section into the Contract Drawings.

916.9.2 Quantity Sheets

The ministry’s Contract Preparation System (CPS) is used for the preparation of Quantity Sheets.

For precast concrete bridge elements, the notations "100%" and "L.S." must also be shown in the "Totals" and "Unit" lines respectively. For multiple structures on the same contract, separate tender items are used for each applicable structure, and a separate Quantity Sheet is required for each structure.

The designer must enter the theoretical quantities for above items in CPS. These quantities are stored in CPS and used for estimating purposes but are not displayed on the Q-Sheet. A value of 100% is automatically displayed in the quantity fields of the Q-sheet.

Concrete and steel reinforcement quantities are included on the “Quantities - Structures” sheet, with location and description details sufficient to link the quantities to the precast concrete bridge elements.

916.9.3 Documentation Accuracy

The theoretical quantities for these items are recorded in whole numbers. Stations are recorded in whole numbers.

916.9.4 Non-Standard Special Provisions

Any precast concrete element not covered by the items above or that deviate from the Structural Standard Drawings will be considered non-standard and require complete design and details signed and sealed by an Engineer and a design-checking Engineer.

Non-standard special provisions (NSSPs) shall be created to address project specific situations which are not covered under applicable standards. Designer should determine the need for a NSSP to address the specific situations for the completion of the work.