

Administration and Inspection Activities for Concrete Barriers

(As Specified in OPSS 740)

740.01 SCOPE

This CAIS covers the construction administration and inspection requirements for concrete barriers as specified in OPSS 740, November 2025.

740.02 REFERENCES

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

Ontario Provincial Standard Specifications, Construction:

OPSS 740 Concrete Barriers
OPSS 904 Concrete Structures

Ontario Provincial Standard Specifications, Material:

OPSS 1350 Concrete - Materials and Production
OPSS 1355 Precast Concrete – Materials and Production

Construction Administration and Inspection Specifications (CAIS):

CAIS 904 Concrete Structures
CAIS 1350 Concrete – Materials and Production
CAIS 1355 Precast Concrete – Materials and Production

740.03 DEFINITIONS

For the purposes of this CAIS, the definitions shall be as specified in OPSS 740.

740.04 DESIGN AND SUBMISSION REQUIREMENTS

Administrative Activities:

1	-	Check that design and submissions are as specified in OPSS 740.	-
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740.05 MATERIALS

Administrative Activities:

1	-	Check that materials are as specified in OPSS 740.	-
2	-	Check that the specified strength shown on PH-CC-433-A (Form A) for concrete barrier is as specified in OPSS 740.	-
3	-	Check that the concrete mix design is accompanied by a test report demonstrating that the coarse aggregate used in the concrete has all faces crushed when tested according to LS-607.	-
4	-	For precast concrete barrier, Check that precast concrete barrier is as specified in OPSS 1355 in its entirety. For precast concrete barrier, additional inspection and administrative activities shall be as specified in CAIS 1355.	-
5	-	For cast-in-place formed or slipformed concrete barrier, Check that concrete is according to OPSS 1350 in its entirety. For cast-in-place concrete, additional inspection and administrative activities shall be as specified in CAIS 1350.	-

740.06 EQUIPMENT

Inspection Activities:

1	-	Check that equipment is as specified in OPSS 740.	25%
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740.07**CONSTRUCTION**

Administrative Activities:

1	-	Receive notification from the Contractor a minimum of 21 Days prior to commencement of construction of what method of construction will be used (formed, slipformed or precast) to construct the concrete barrier.	-
2	-	Check that the method of construction (formed, slipformed or precast concrete barrier) is as specified in OPSS 740.	-

Inspection Activities:

1	-	<u>Foundation Preparation</u> <ul style="list-style-type: none"> • Check that, immediately ahead of placing concrete, the Contractor wets down the subgrade by means of a uniform spray of water sufficient to wet the subgrade thoroughly without leaving standing water for cast-in-place concrete barrier. • Check that placement of asphaltic concrete pavement beneath and adjacent to the precast concrete barrier conforms with OPSS 310. 	25%
2	-	Check that expansion joints are as specified in the Contract Documents.	25%
3	-	Check that construction joints located at the end of a day placement are squared and as specified in the Contract Documents.	25%
4	-	Check that treatment at bridge piers is as specified.	25%
5	-	<u>Conventional Wooden or Steel Form Construction Method</u> <ul style="list-style-type: none"> • Check for correct alignment, grade and granular base preparation. • Check for correct joint detail and spacing. • Check that the inside face of formwork is clean and in good order, to produce a smooth cast face. • Check that the barrier wall forms are adequately restrained to prevent uplift. • Check that railing mounts/anchorage are correctly installed (Location, elevation, flushness, and anchor bolt protrusion is adequate for tube rails). • Check that concrete material, production and testing is as specified in the contract documents. • Check that concrete placement, consolidation and finishing operations are as specified in the contract documents. • Check that specified curing requirements are carried out. • Check for surface tolerances and cracking. 	25%

6	-	<u>Slipform Construction Method</u> <ul style="list-style-type: none"> • Check for correct alignment, grade and granular base preparation. • Check that specified percentage of air is being maintained. • Check that construction joints, isolation joints and contraction joints are constructed in accordance with the contract requirements. • Check that specified curing requirements are met. • Check that concrete is not placed by slipforming when the temperature is below 0 °C. • Check that other temperature requirements are adhered to and as specified in the contract documents. • Check for surface tolerances and cracking. 	25%
7	-	<u>Precast Construction Method</u> <ul style="list-style-type: none"> • Check that the foundation is prepared for acceptance of precast elements. • Check that precast elements are as specified. • Check for correct installation of interlocking devices and Check that no damaged units are installed. • Check for correct alignment and grade. 	25%
8	-	Check that reflectors placed on concrete barriers are as specified in the Contract Documents.	25%
9	-	Check that management of excess material is as specified in the Contract Documents.	25%

740.08 QUALITY ASSURANCE

Inspection Activities:

1	M	Inspect the concrete barrier to Check that the acceptance of concrete barrier is as specified in OPSS 740.	100%
2	M	For precast concrete barriers, inspect the elements for defects or deficiencies as specified in OPSS 1355. Additional inspection activities shall be as specified in CAIS 1355.	100%
3	M	For cast-in-place concrete barrier, additional inspection activities shall be as specified in CAIS 904 and CAIS 1350.	100%

Administrative Activities:

1	-	Check that quality assurance and acceptance of concrete barrier is as specified in OPSS 740.	-
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2	-	For precast concrete barrier, Check that quality assurance and acceptance is as specified in OPSS 1355. Check that precast concrete barriers meet the quality assurance requirement as specified in OPSS 1355, including acceptable 28-Day compressive strength, air void system parameters, rapid chloride permeability and salt scaling resistance. For precast concrete barriers, additional administrative activities shall be as specified in CAIS 1355.	-
3	-	For cast-in-place concrete barrier system, Check that quality assurance and acceptance is as specified in OPSS 904 and OPSS 1350. For cast-in-place concrete barrier, additional administration activities shall be as specified in CAIS 904 and CAIS 1350.	-
4	-	Notify MTO's Quality Assurance Section for any concrete barrier that fails to meet the acceptance requirements. Provide written notification to the Contractor, after consultation with MTO, for rejectable work.	-

740.09 MEASUREMENT FOR PAYMENT

Administrative Activities:

1	-	Measurement for payment shall be as specified in OPSS 740.	-
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740.10 BASIS OF PAYMENT

Administrative Activities:

1	-	Basis of payment shall be as specified in OPSS 740.	-
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