

New Jersey Turnpike Authority

P.O. Box 5042, Woodbridge, NJ 07095



September 22, 2023

Document Change Announcement

2016 Standard Supplementary Specifications Precast Concrete Construction Barrier (PCCB) Update DCA2023SS-12

Subject: Revisions to

**Section 801 Traffic Control on Authority Roadways, Subsection 801.03 Methods of Construction
Section 920 Traffic Control Devices, Subsection 920.08 Concrete Barrier**

Description of Change:

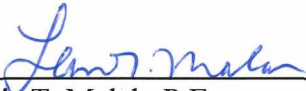
This DCA updates PCCB and temporary attenuator standards for MASH compliance and is released in conjunction with DCAs for Standard Drawings and Design Manual.

Notice to New Jersey Turnpike Authority Staff and Design Consultants


Effective immediately, changes must be implemented in all applicable projects that have not entered Phase C development within one month following the date of this DCA. Contact your New Jersey Turnpike Authority Project Manager for instruction.

The revisions may be accessed on the Authority's webpage: <https://www.njta.com/doing-business/professional-services>

Recommended By:

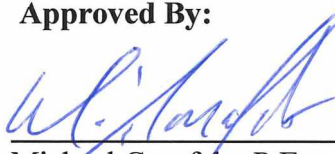


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NOTE: All text herein are REVISIONS, as indicated by the tracked changes, to the latest version of the 2016 Standard Supplementary Specifications.

801.03 Methods of Construction

(C) Traffic Control Devices

(2) Precast Concrete Construction Barrier

Delete this Subparagraph in its entirety and replace it with the following:

Precast concrete construction barrier shall be inspected and approved by the Engineer prior to delivery to the job site. The precast concrete construction barrier shall meet the criteria set forth below. The Engineer will be the sole judge of the acceptability of the precast concrete barrier. Precast concrete barrier deemed unsatisfactory by the Engineer will not be used. Precast concrete barrier that is damaged or deteriorates during the course of the Project shall be replaced at no additional cost to the Authority.

Where different joint classifications are required within a section of barrier, the controlling joint class shall extend beyond the area required for limited deflection as noted in the following table:

<u>PCCB - Transition Between Joint Classes</u>	
<u>Joint Class Transition</u>	<u>Transition Requirements</u>
<u>D to C</u>	<u>Extend one complete barrier section of Joint Class D beyond the work area requiring limited deflection.</u>
<u>D to B</u> <u>D to A</u>	<u>Extend one complete barrier section of Joint Class D beyond the work area requiring limited deflection and pin the first hole of the Joint Class A or B barrier section on the traffic side of the PCCB.</u>
<u>C to B</u> <u>C to A</u>	<u>Extend one complete barrier section of Joint Class C beyond the work area requiring limited deflection and pin the first hole of the Joint Class A or B barrier section on the traffic side of the PCCB.</u>
<u>B to A</u>	<u>Extend Joint Class B box beam stiffing for 50 ft. minimum beyond the work area requiring limited deflection.</u>

~~a minimum of one complete barrier length before and after the work area. For example, where A and D are required, Joint Class D shall extend a minimum of one complete barrier length before and after the work area before changing to Joint Class A.~~

The concrete construction barrier may be installed after the removal of existing surfacing and removed prior to paving, unless otherwise shown on Plans, if site conditions and construction sequence require doing so.

The Contractor shall furnish all hardware, concrete barrier interlock devices, grouting, box beam and associated hardware, anchors and all else necessary for the complete installation and subsequent removal and/or relocation of the concrete barrier. Concrete barrier shall be installed on a uniform surface free from vertical projections and drop-offs and free from fixed objects for the maximum barrier deflection distances for the joint class as indicated on the plans. Except as approved by the

Engineer the Contractor must maintain the minimum clear area behind the barrier free from personnel, equipment, and material.

The Contractor shall be required to maintain the concrete barrier units in their correct alignment at all times. The Contractor shall promptly furnish (any time of the day or night upon notification from the Authority, State Police or the Engineer) all labor, materials and equipment as necessary to repair, reset and/or realign any portion of concrete barrier units damaged or displaced by traffic incidents or otherwise. All Contractor-furnished devices shall remain the property of the Contractor and shall be removed by the Contractor upon completion of the work.

All precast concrete construction barrier that does not meet the following criteria, as determined by the Engineer prior to placement on the roadway, shall be rejected for use:

- No more than three cracks in the middle 6 feet of the barrier.
- All cracks must be less than $\frac{1}{8}$ inch wide.
- No gouges in the lower half of the face exposed to traffic.
- No reinforcing steel shall be exposed.
- The keyway must be intact.
- Lifting devices shall be intact.
- Face exposed to traffic must be clean of all road dirt.
- Concrete barrier delineators shall be in place.
- Interlock must accept key full depth without Projection of key cap above barrier.
- The full keyway must be available.

Precast concrete construction barrier that becomes damaged shall be replaced within 24-hours, as directed by the Engineer.

The Contractor shall clean and maintain the drainage slots at the bottom of the concrete construction barrier at all times as directed by the Engineer.

920.08 Concrete Barrier

Delete the second paragraph and replace it with the following:

Concrete construction barrier and interlocking devices shall be in accordance with the Traffic Protection (TP) Standard Drawings. The Contractor may submit alternate barrier systems with interlocking devices that meet [NCHRP Report 350 MASH 2016](#) - Test Level 3 requirements to the Engineer for review and approval. An alternate barrier system submitted for approval must demonstrate that the maximum dynamic deflection of the alternate barrier system observed during MASH crash testing shall not exceed the minimum required clear area of the standard concrete barrier system joint class specified by the contract plans. Documentation of successful MASH crash testing by a certified testing facility shall be provided as a condition of an alternate barrier system approval. The approval of an alternate barrier system is solely at the discretion of the Engineer and will consider the minimum required clear area behind the barrier, installation requirements, and a general assessment if the alternate barrier system is in the Authority's best interest. If an alternate barrier system is accepted by the Engineer, the installation of the alternate barrier system shall be in conformance with conditions under which the barrier system demonstrated MASH crash testing compliance. Approved or rejected substitutions shall be at no additional cost to the Authority.