



December 04, 2003

MEMORANDUM TO TEAM LEADERS AND CONSULTANTS

SUBJECT: Diaphragms for Prestressed Girder Spans

For prestressed girder spans, cast-in-place concrete diaphragms shall be used at all supports. For spans greater than 40 feet, intermediate diaphragms shall also be used and shall be constructed of cast-in-place concrete. At a minimum, one line of intermediate diaphragms shall be used in each span. For grade separation projects and for projects crossing navigable waterways, intermediate diaphragms shall be located over the centerline of the traffic lanes, railroad tracks, or navigational channels. For skews of 20 degrees or less, the intermediate diaphragms may be placed along the skew of the bridge. For skews in excess of 20 degrees, the intermediate diaphragms shall be placed perpendicular to the beams. The tops of the intermediate diaphragms should be detailed three inches below the tops of the girders. Slabs shall not be poured until a minimum of seven days after the interior diaphragms are poured or until the diaphragm concrete reaches a compressive strength of 3000 psi.

For continuous prestressed girder spans, the interior support diaphragms shall be cast concurrently with the deck slab above the support. For integral end supports, the end walls shall also be cast concurrently with the deck slab. At simple span supports and at expansion ends of continuous spans, the support diaphragms may be cast prior to the placement of the deck slab.

The intermediate diaphragm requirements specified in this memorandum replaces the requirements specified in design memorandum DM0193. For previously completed plans that do not conform to the requirements of this memorandum, the State Bridge Design Engineer will, on a case-by-case basis, assess the need for revisions.

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