

**404.09 DIFFERENTIAL SHRINKAGE
(AASHTO 9.13.3.3)**

Differential shrinkage should be considered in the design when the effects become significant and when approved by the Project Manager.

404.10 METHOD OF ANALYSIS

AASHTO Type V and Type VI modified girders should be used in place of Type V and Type VI regular girders whenever possible.

The theoretical build-up depth shall be ignored for calculation of composite section properties.

405 PRESTRESSED VOIDED SLABS**405.01 END BLOCKS**

End Blocks should be 380 millimeters long with sufficient steel provided to resist the tensile forces due to concentrated prestressing loads.

405.02 DIAPHRAGMS

Diaphragms shall be cast within the slab at midspan for spans up to 12 meters and at third points for spans over 12 meters.

405.03 LATERAL TIES

One lateral tie shall be provided through each diaphragm located at the mid-depth of the section.

405.04 SHEAR KEYS

After shear keys have been filled with an approved non-shrink mortar, lateral ties shall be placed and tightened.

405.05 BARRIERS

Barriers shall have a 6 millimeter open joint at the midspan to prevent the barrier from acting as an edge beam and causing long term differential deflection of the exterior beam.

406 PRESTRESSED BOX BEAMS**406.01 END BLOCKS**

END BLOCKS 450 MILLIMETERS LONG SHALL BE PROVIDED AT EACH END AND SUFFICIENT STEEL SHALL BE PROVIDED IN THE END BLOCKS TO RESIST THE TENSILE FORCES DUE TO THE PRESTRESSING LOADS.

406.02 DIAPHRAGM

Diaphragms, cast within the beam, shall be provided at the midspan for spans up to 15 meters, at the third points for spans from 15 to 22 meters and at quarter points for spans over 22 meters.

406.03 LATERAL TIES

One lateral tie shall be provided through each diaphragm located at the mid-depth of the section. However, for the 990 millimeter and 1065 millimeter deep sections, when adjacent units are tied in pairs for skewed bridges, in lieu of continuous ties, two ties shall be provided, located at the third points of the section depth.

406.04 SHEAR KEYS

After shear keys have been filled with an approved non-shrink, low slump mortar, lateral ties shall be placed and tightened.