# ANALYSIS OF MULTI SPAN BOX GIRDER BRIDGE WITH OR WITHOUT INTERMEDIATE STIFFENING MEMBERS.

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An interactive program has been developed to analyse the multi span (steel/ concrete) box girder bridge with or without intermediate stiffening members. This interactive program is written in FORTRAN 77 for execution on an IBM PC compatible micro computer under MS DOS.

The finite strip method - a special form of the displacement formulation of the finite element procedure - is used in this study. The basic difference between these two methods is the assumed displacement patterns. Normally, the displacement functions assumed for the finite element method are two way polynomial functions, whereas for finite strip method a one way polynomial function (in the transverse direction) and a harmonic function (in the span wise direction) are assumed. The finite strip spans between two opposit and supports and the harmonic functions are chosen to satisfy the two end support conditions.

For the analysis of multi span indeterminate structure (with ends simply supported) the input data required can be divided into two parts one defining the released structure and the other for restrained section. The type of restrained section that can be analysed are: truss type diaphragm, frame and solid diaphragm with horizontal, vertical, hinged and built-in supports. In this analysis the deformability of the intermediate supports and stiffening members can also be taken into account. This program can also be used to analyse related structures such as folded plate roofs and barrel shells.