

DESIGN A STEEL BRIDGE LINKING MULTI-PURPOSE HALL WITH ACADEMIC BLOCK

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ABSTRACT

The purpose of this report is to show to design a steel bridge linking multi-purpose hall with academic block to the new limit state code BS 5950. This report covers the design of elements and joints in steel construction to the simple design methods.

My design steel bridge is a girder type steel bridge. A girder type bridges only for short, medium spans which up to 50m and generally provide the most economic solution. The aim of structural design is to produce a safe and economical structure that fulfils its required purpose. Theoretical knowledge of design principles and theory and the constraints given in the standard to give a safe design.

My main design is to design the beam, follow by column, foundation and design of connections. Beams are the most fundamental type of member present in civil engineering structure. Their principle is to transmit the vertical load. The columns in a structure carry the loads from the beams and slab down to the foundation. The column base transmits axial load, horizontal load and moment from the steel column to the concrete foundation. I will is bolting and welding to make my design the connection of flange plate which welded between the reinforced concrete slab and universal beam interface. Shear connector also my part of design, it transfer the shear at steel and concrete and control the slit between the two parts.