

1.4 Concepts of Limit State Design

Relative advantages and Limitations

Working stress design	Limit state design
Working stress method is the elastic method of design	Limit state method is similar to plastic design which considers most critical limit states of strength and serviceability.
Structural members may be temporarily be over loaded under certain circumstances	The structure is designed to withstand safely all loads likely to act on it.
Working stress design assumes same factor of safety for dead loads and live loads	In limit state design method the partial safety factor are different for dead and live loads.
Savings in weight of steel decreases	Savings in weight of steel of the order of 15 per cent for tension and compression members and 10 percent for beams may be achieved by limit state method.