Design of Seismic-Resistant Steel Building Structures

1. Introduction and Basic Principles

Prepared by: Michael D. Engelhardt University of Texas at Austin

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Seismic Design Of Steel Structures

Federico Mazzolani, Robert Tremblay

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<u>Design of Steel Structures for Buildings in Seismic Areas</u> European Convention for Constructional Steelwork, Raffaele Landolfo, Associação Portuguesa de Construção, Federico M. Mazzolani, Dan Dubina, Luis Simões da Silva, Mario

D'Aniello, 2018-06-22 This volume elucidates the design criteria and principles for steel structures under seismic loads according to Eurocode 8 1 Worked Examples illustrate the application of the design rules Two case studies serve as best Seismic Resistant Steel Structures Federico M. Mazzolani, Victor Gioncu, 2014-05-04 The catastrophic practice samples earthquakes of the last decades Mexico City 1985 Loma Prieta 1989 Northridge 1994 Kobe 1995 have seriously undermined there putation of steel structures which in the past represented the most suitable solution for seismic resistant structures Even if in very few cases the performance of steel joints and members was unexpectedly bad showing that it was due to some lacks in the current design concept As a consequence of the lessons learned from the above dramatic events many progress has been recently achieved in the conception design and construction by introducing the new deals of the performance based design including the differentiation of earthquaketypes and considering all factor influencing the steel structure behaviour under strong ground motions In this scenario the aim of the book is to transfer the most recent achievements into practical rules for a safe design of seismic resistant steel structures. The seven Chapters cover the basic principles and design criteria for seismic resistant steel structures which are applied to the main structural typologies like moment resistant frames braced frames and composite structures with particular reference to connections and details STESSA 2000: Behaviour of Steel Structures in Seismic Areas Federico Mazzolani, Robert Tremblay, 2021-07-28 This is a review of developments in the behaviour and design of steel structures in seismic areas The proceedings look at the analytical and experimental research on the seismic response of steel structures and cover topics such as global behaviour and codification design and application

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