Guide for Emulating Cast-in-Place Detailing for Seismic Design of Precast Concrete Structures

Reported by Joint ACI-ASCE Committee 550 Reapproved 2017



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Reported by Joint ACI-ASCE Committee 550

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The committee would like to acknowledge Cloyd E. Warnes' contribution for providing the initial information on emulation, and FDG, Inc., of Arvada, CO, for providing graphics.

This guide provides information for detailing precast concrete structures that should meet building code requirements for all seismic design categories by emulating cast-in-place reinforced concrete design. This guide also explains how emulative precast concrete structures can address the provisions of ACI 318-08, including those of Chapter 21, if special attention is directed to detailing the joints and splices between precast components.

Keywords: ductility; elastic design; emulation; flexural strength; joint; precast concrete; precast detailing; reinforcement.

CONTENTS Chapter 1—Introduction and scope, p. 2 1.1—Introduction

- 1.2—Scope

Chapter 2—Notation and definitions, p. 2

- 2.1—Notation
- 2.2—Definitions

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Chapter 3—General design procedures, p. 2

3.1—Selecting a structural system

- 3.2—Ductility and hinges
- 3.3—Design and analysis procedures

Chapter 4—System components, p. 7

Chapter 5—Connection of precast elements, p. 8

- 5.1—Connections in wall systems
- 5.2—Connections in frame systems
- 5.3—Other connections: floor diaphragms
- 5.4—Special materials and devices

Chapter 6—Guidelines for fabrication, transportation, erection, and inspection, p. 15

Chapter 7—Examples of emulative precast concrete structures, p. 16

Chapter 8—Summary and conclusions, p. 16

Chapter 9—References, p. 16

9.1—Referenced standards and reports 9.2—Cited references

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