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**Code Requirements for Evaluation,
Repair, and Rehabilitation of
Concrete Buildings**

An ACI PROVISIONAL STANDARD

Reported by ACI Committee 562



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Code Requirements for Evaluation, Repair, and Rehabilitation of Concrete Buildings

PROVISIONAL STANDARD

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ACI Committee 562

Code Requirements for Evaluation, Repair, and Rehabilitation of Concrete Buildings

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Preface

This code provides the minimum requirements for the evaluation, repair, rehabilitation, and strengthening of existing concrete buildings and, where applicable, in nonbuilding structures.

The code is comprised of both prescriptive and performance requirements. Commentary is provided for both the prescriptive and performance requirements and is intended to provide guidance to the licensed design professional and referenced sources for additional information the material presented in the code provisions.

The code and commentary is intended for use by individuals who are competent to evaluate the significance, limitations of its content and recommendations, and who will accept responsibility for the application of the material it contains.

The materials, processes, quality control measures, and inspections described in this document should be tested, monitored, or performed as applicable only by individuals holding the appropriate ACI Certifications or equivalent.

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INTRODUCTION

The purpose of this code is to provide minimum material and design requirements for the evaluation, repair, and rehabilitation of structural concrete members to comply with the general existing building code.

CHAPTER 1—GENERAL

1.1—Scope

1.1.1 The scope, purpose, applicability, exclusions, interpretation principles, language, and units of measure are defined in this chapter.

1.1.2 The “general existing building code” refers to the code adopted by a jurisdiction that regulates existing buildings.

1.1.2C The general existing building code establishes the limit to which a repair and rehabilitation can occur in accordance with the original building code. Above these limits, the repair and rehabilitation is in accordance with the general building code. The general existing building code in the United States is usually based on the International Existing Building Code (IEBC) developed by the International Code Council. The IEBC is revised every three years and was first published in 2003.

1.1.3 The “general building code” refers to the building code adopted by a jurisdiction that regulates new building design and construction. The “original building code” refers to the general building code adopted by a jurisdiction at the time the existing building was constructed.

1.1.3C The general building code establishes the design requirements for construction materials. The general building code in the United States is usually based on the International Building Code (IBC) published by the International Code Council. The IBC is revised every three years and was first published in 2000. For the design and construction of concrete structures, the IBC and legacy codes reference ACI 318, Building Code

Requirements for Structural Concrete, with exceptions and additions.

1.1.4 The “design basis code” is the general building code or the original building code under which the evaluation, repair, and rehabilitation are implemented. If a jurisdiction has adopted a general existing building code, the design basis code shall be determined in accordance with Chapter 4. If a jurisdiction has not adopted a general existing building code, 1.3 applies.

1.1.4C The general existing building code establishes limits to which a repair and rehabilitation can occur in accordance with the original building code. Above these limits, the repair and rehabilitation is in accordance with the general building code.

1.1.5 This code is intended to supplement the evaluation requirements of the general existing building code.

1.1.5C This code provides evaluation procedures for existing concrete structures. It also provides material and design requirements that allow the licensed design professional to bring existing concrete structures in compliance with building codes written for new construction.

1.1.6 This code provides minimum material and design requirements for the repair of damaged, deteriorated, or deficient structural concrete members and systems repaired in accordance with the design basis code. Structural repair includes restoring or increasing strength and deformation capacities as well as the durability of existing members.

1.1.7 This code supplements the general existing building code and shall govern in all matters pertaining to the evaluation, repair, rehabilitation, strengthening of concrete members, and concrete sections of composite members in existing concrete buildings, except wherever this code is in conflict with the requirements in the general existing building code. Wherever this code