

Together with Code SIA 269/1, replaces Guideline SIA 462, 1994 edition

Grundlagen der Erhaltung von Tragwerken
Bases pour la maintenance des structures porteuses
Basi per la conservazione delle strutture portanti

Existing structures – Bases for examination and interventions

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CONTENTS

	Page		Page
Foreword	4	Appendix	
0 Scope	5	A Step-by-step examination procedure	
0.1 Limitations	5	(normative)	24
0.2 References	5	B Structural safety requirements	
0.3 Deviations	5	(normative)	25
1 Terminology	6	C Examination values (normative)	26
1.1 Technical terms	6		
1.2 Symbols	8		
2 Basic principles	10		
2.1 General	10		
2.2 Monitoring and maintenance	10		
2.3 Examination	10		
3 Requirements	12		
3.1 Use	12		
3.2 Structural safety	12		
3.3 Serviceability	12		
3.4 Proportionality of interventions	12		
4 Updating	13		
4.1 General	13		
4.2 Updating of actions	13		
4.3 Updating of construction material and geotechnical properties	13		
4.4 Updating of structural models and geometrical properties	13		
4.5 Updating of ultimate resistances and deformation capacity	14		
5 Structural analysis and verifications	15		
5.1 General	15		
5.2 Deterministic verifications	15		
5.3 Probabilistic verifications	16		
5.4 Verification of the proportionality of safety-related interventions	16		
6 Examination	18		
6.1 Procedure	18		
6.2 Condition survey	19		
6.3 Condition evaluation	20		
6.4 Recommendation of intervention measures	21		
7 Interventions	22		
7.1 General	22		
7.2 Rehabilitation and modification	22		
7.3 Monitoring and maintenance	23		
7.4 Urgent safety measures	23		
7.5 Supplementary safety measures	23		

FOREWORD

Code SIA 269 describes the basic principles and the procedure to be followed in the treatment of existing structures and is directed at specialists in engineering activities related to existing structures. In addition, owners of the structures are addressed in the sections on examination and the planning of interventions.

Code SIA 269 forms part of the SIA's structural codes. It is based on the principles set forth in Code SIA 469 *Preservation of constructions* and supplements Code SIA 260 in the area of interventions in existing structures.

Code SIA 269 is the basic code in the field of engineering of existing structures and is supplemented, with respect to actions and the different methods of construction, by the following codes:

- Code SIA 269/1 Existing structures – Actions
- Code SIA 269/2 Existing structures – Concrete structures
- Code SIA 269/3 Existing structures – Steel structures
- Code SIA 269/4 Existing structures – Composite steel and concrete structures
- Code SIA 269/5 Existing structures – Timber structures
- Code SIA 269/6 Existing structures – Masonry structures
- Code SIA 269/7 Existing structures – Geotechnics.

Technical Specification SIA 2018 continues to apply to the examination of existing buildings with respect to earthquakes. However, it is planned to supplement the codes for existing structures with a Code SIA 269/8 *Existing structures – Seismic aspects*.

Codes SIA 269/1 to 269/8 also form part of the SIA's structural codes and supplement the series of Codes SIA 261 to 267.

Together with Code SIA 269/1, Code SIA 269 replaces the guideline SIA 462 (1994) *Assessment of the structural safety of existing structures*.

The application of Code SIA 269 requires a detailed knowledge of Codes SIA 260 and SIA 469. Terms that are already defined in these two codes, in particular the terms relating to existing structures, are not listed again in the section on Terminology.

Code SIA 269 introduces the technical terms “updating”, “degree of compliance”, “concept of intervention”, “design of intervention” and “proportionality of interventions”. The technical terms “examination situation” and “examination value” are also used in connection with examination (analogously to the corresponding technical terms for the design of structures). The term “defect” is used in its generally understood sense. Accordingly, “defect” refers to the lack of a technical or physical property, detached from any legal interpretation. A defect does not therefore automatically give rise to any liability regarding defects. The term “defect” does not simply relate to the condition at the time of acceptance of the construction work.

Certain aspects of existing structures are dealt with using a risk-based procedure. The technical terms “efficiency of the interventions” and “safety costs” are defined accordingly in Code SIA 269. Code SIA 269 provides criteria for the application of the methods of reliability theory, for which reason its fundamental terms are also defined under the technical terms. The implementation of these criteria in the definition of the safety level for the purpose of verification of structural safety as well as in judging the proportionality of interventions requires in-depth knowledge.

The project management recognises the importance of a panel of experts in the sense in which it was first introduced in Guideline SIA 462. However, in line with the principle of separation of technical specifications and the assignment of responsibilities to the different responsible parties, the panel of experts is not explicitly addressed in Code SIA 269.

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Approval and validity

The SIA's central committee for codes and regulations approved the present Code SIA 269 on 23rd November 2010.

It is valid as from 1st January 2011.

Together with Code SIA 269/1 *Existing structures – Actions*, it replaces Guideline SIA 462 *Assessment of the structural safety of existing construction works*, 1994 edition.

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