



Standard Guide for Repointing (Tuckpointing) Historic Masonry¹

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1. Scope

1.1 This guide applies only to existing historic masonry construction. For purposes of this guide historic masonry is intended to refer to buildings that have significant historic, architectural, cultural or social meaning and are constructed of masonry materials. Similar techniques and evaluation should be employed for non-historic masonry, but are not addressed in this guide.

1.2 This guide outlines procedures for repointing historic masonry and is intended to provide guidelines for the user to establish project-specific requirements for repointing of historic masonry.

1.3 This guide only pertains to masonry units: brick, terra cotta, stone, cast stone, and concrete brick laid in mortar, and may or may not be appropriate for other masonry units.

1.4 This guide addresses repointing (tuckpointing) as defined in 3.1.3.

1.5 When considering repointing, especially on masonry of artistic, architectural, cultural, or historical significance, guidance from a specialist experienced in historic masonry and repointing should be sought.

1.6 This guide does not address pointing styles or profiles used on masonry or the methods of producing them.

1.7 Additional repairs that may impact the structural integrity of the masonry may necessitate that a structural stability analysis be completed prior to the execution of any work.

1.8 Following this guide may involve hazardous materials, operations, and equipment. *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory requirements prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

C 67 Test Methods of Sampling and Testing Brick and Structural Clay Tile²

C 140 Methods of Sampling and Testing Concrete Masonry Units²

C 170 Test Method for Compressive Strength of Natural Building Stone³

C 270 Specification for Mortar for Unit Masonry²

C 780 Method for Pre-construction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry²

C 1072 Test Method for Measurement of Masonry Flexural Bond Strength²

C 1324 Test Method for Examination and Analysis of Hardened Masonry Mortar²

E 631 Terminology of Building Construction⁴

E 1857 Guide for Selection of Cleaning Techniques for Masonry, Concrete, and Stucco Surfaces⁵

2.2 Other Referenced Documents:

ACI 530.1/ASCE 6/TMS 602 Specifications for Masonry Structures

London, M., *Masonry: How to Care for Old and Historic Brick and Stone*, The Preservation Press, Washington, DC, 1988

“The Secretary of the Interior’s Standards for the Treatment of Historic Properties,” U.S. Department of the Interior, National Park Service, Preservation Assistance Division, Washington, DC, revised 1995

McKee, H. J., “Introduction to Early American Masonry: Stone, Brick, Mortar, and Plaster,” The National Trust, Washington, DC, 1973.

Technical Note 7F, “Moisture Resistance of Brick Masonry Maintenance,” Brick Industry Association (BIA), Reston, VA, Reissued October 1998

Technical Note 1, “All-Weather Construction,” Brick Industry Association (BIA), Reston, VA, Revised March 1992

“Preparation and Use of Lime Mortars: An Introduction to the Principles of Using Lime Mortars,” Historic Scotland, Edinburgh, Scotland, 1998

Oats, J. A. H., *Lime and Limestone—Chemistry and Technology, Production and Uses*, Wiley-VCH, New York, 1998

Mack, R. C., and Spewick, J. P., Preservation Brief #2, “Repointing Mortar Joints in Historic Brick Buildings,” National Park Service, U.S. Department of the Interior, Washington, DC, 1998

¹ This guide is under the jurisdiction of ASTM Committee E06 on Performance of Buildings and is the direct responsibility of Subcommittee E06.24 on Building Preservation and Rehabilitation Technology.

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² *Annual Book of ASTM Standards*, Vol 04.05.

³ *Annual Book of ASTM Standards*, Vol 04.07.

⁴ *Annual Book of ASTM Standards*, Vol 04.11.

⁵ *Annual Book of ASTM Standards*, Vol 04.12.