This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

Designation: D6092 – 14ε1

Standard Practice for Specifying Standard Sizes of Stone for Erosion Control[1]

This standard is issued under the fixed designation D6092; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

ε[1] NOTE—Figure 4 was editorially corrected in June 2018.

1. Scope*

1.1 This practice covers size designations and maximum ranges in mass or gradation for standard sizes for riprap, spalls, or bedding, or both, used for slope protection of dam embankments, streambank erosion control, bridge piers and abutments. Sizes used for outer harbor structures such as breakwalls, revetments, confined diked disposal structures (heretofore described as armor stone, cover stone, or dimension stone) for which stone sizes range between 5 and 25 tons, or that require cut dimensions for layed-up structures are beyond the scope of this practice.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.3 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *This practice offers an organized collection of information or a series of options and does not recommend a specific course of action. This document cannot replace education or experience and should be used in conjunction with professional judgment. Not all aspects of this practice may be applicable in all circumstances. This ASTM standard is not intended to represent or replace the standard of care by which the adequacy of a given professional service must be judged, nor should this document be applied without consideration of a project's many unique aspects. The word "Standard" in the title of this document means only that the document has been approved through the ASTM consensus process.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*[2]

D653 Terminology Relating to Soil, Rock, and Contained Fluids

D4992 Practice for Evaluation of Rock to be Used for Erosion Control

D5519 Test Methods for Particle Size Analysis of Natural and Man-Made Riprap Materials

E11 Specification for Woven Wire Test Sieve Cloth and Test Sieves

3. Terminology

3.1 *Definitions*—For definitions of common technical terms in this practice, refer to Terminology D653.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *filter/bedding stone/spalls*—stone, filter stone consisting of crushed stone ranging in size from minus 2.0 in. (50 mm) to No. 100 (150 µm) and bedding stone, often referred to as "spalls," consisting of crushed stone ranging in size from minus 6½ in. (163 mm) to No. 16 (1.18 mm). Filter and bedding may be placed in two layers prior to the riprap placement, that is, a filter layer 8 to 10 in. (200 to 250 mm) thick and a bedding layer of 6 to 8 in. (150 to 200 mm) thick.

3.2.2 *geotextiles*—suitable geotextile fabrics that meet the design requirements may be used instead of, or in conjunction with, the above filter/bedding stone. Suitable cover thickness may be required.

3.2.3 *gradation*—the proportions by mass of stones distributed within specified ranges between maximum and minimum limits.

3.2.4 *prolate sphere*—a spheroid in which the polar axis is greater than the equatorial diameter.

[1] This practice is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of Subcommittee D18.17 on Rock for Erosion Control.

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

*A Summary of Changes section appears at the end of this standard

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