

Standard Guide for Specifying and Evaluating Performance of Single Family Attached and Detached Dwellings—Functionality¹

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INTRODUCTION

This guide, L-Functionality is part of a set which together presents a complete performance standard guide for specifying and evaluating single family attached and detached dwellings. The complete set in the series, when finished, is to include the attributes given in [Table 1](#).

The series provides a framework for specifying and evaluating qualities of building products and systems to meet user needs without limiting ways and means. The format for this guide includes performance statements that consist of four components (Objectives-Criteria-Evaluation-Commentary) which together provide a systematic performance based approach for the intended purpose. These performance statements are presented in [Appendix X2](#) against a Hierarchy of Building Elements as tabulated in [Table 2](#).

To some extent, the Hierarchy of Building Elements reflects the structure of the housing industry, and therefore, the organization of the provider teams. For example, a homebuilder or developer is likely to be the systems integrator responsible for “0. Whole Building System.” The provider teams may include separate subcontractors for “2.1 Foundation,” “2.2 Superstructure,” “5. Plumbing,” “6. HVAC,” and so forth, and separate suppliers for components such as “3.2.2 Windows,” “4.1.2 Doors,” “3.4 Joint Sealants,” “5.1 Plumbing Fixtures,” and so forth.

The purpose of these standard guides is to provide a standardized methodology for describing performance parameters of single family attached or detached dwellings. This methodology standardizes the descriptions of performance of a single family dwelling, attached or detached, that can be expressed as performance statements (O-C-E-C) for a particular attribute, agent, and user need.

These standard guides are intended for use by those who need to prescribe required levels of performance and those who need to rate a product which forms a single family dwelling or part thereof. The standard guides include examples of performance statements which may be used for the specification and evaluation of design, materials, products, components, subsystems, and systems.

1. Scope

1.1 This guide provides examples of performance statements for functional and operable, spaces, products, components, and subsystems for single family attached and detached dwellings. These include the location, relationships, and dimensions of Spaces and Fittings, Furnishings and Equipment, and the operability and other parameters of Functionality of the Exterior Enclosure, Interior Space Division,

Plumbing, HVAC, Fire Protection Subsystems, Electrical Network, Communication and Security Networks, Fuel Networks and Fittings, and Furnishings and Equipment that are not covered by the performance statements of the other attributes. See [Fig. 1](#), Matrix of Parameters of Functionality.

1.2 The values stated in SI units are to be regarded as standard. The values given in parentheses are mathematical conversions to inch-pound 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 and health practices and determine the applicability of regulatory requirements prior to use.*

¹ This guide is under the jurisdiction of ASTM Committee D33 on Protective Coating and Lining Work for Power Generation Facilities and is the direct responsibility of Subcommittee D33.09 on Protective Lining for FGD Systems.

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