

# National BIM Standard - United States® Version 3

## 2 Reference Standards

### 2.7 Level of Development Specification 2013

#### 2.7.1 Scope – Business Case Description

The Level of Development (LOD) Specification is a reference that enables practitioners in the AEC Industry to specify and articulate with a high level of clarity the content and reliability of Building Information Models (BIMs) at various stages in the design and construction process. The LOD Specification utilizes the basic LOD definitions developed by the AIA for the *AIA G202-2013 Building Information Modeling Protocol Form*<sup>1</sup> and is organized by CSI *UniFormat*™ 2010. It defines and illustrates characteristics of model elements of different building systems at different Levels of Development. This clear articulation allows model authors to define what their models can be relied on for, and allows downstream users to clearly understand the usability and the limitations of models they are receiving.

The intent of the Specification is to help explain the LOD framework and standardize its use so that it becomes more useful as a communication tool. It does not prescribe what Levels of Development are to be reached at what point in a project but leaves the specification of the model progression to the user of this document. To accomplish the document's intent, its primary objectives are:

- To help teams, including owners, to specify BIM deliverables and to get a clear picture of what will be included in a BIM deliverable
- To help design managers explain to their teams the information and detail that needs to be provided at various points in the design process
- To provide a standard that can be referenced by contracts and BIM execution plans.

##### 2.7.1.1 Publishing organization

- Associated General Contractors of America (AGC) - BIMForum
- American Institute of Architects (AIA).

##### 2.7.1.2 Version

The version of this reference standard document is the LOD Specification, 2013

##### 2.7.1.3 Date of publication

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#### 2.7.1.4 Industry source and process

The AGC BIMForum (bimforum.org) initiated the development of this LOD Specification and formed a working group comprising contributors from both the design and construction sides of the major disciplines. The working group first interpreted the AIA's basic LOD definitions for each building system and then compiled examples to illustrate the interpretations. Because BIM is being put to an ever increasing number of uses, the group decided that it was beyond the initial scope to address all of them. Instead, the specifications were developed to address model element geometry, with three of the most common uses in mind – quantity take-off, 3D coordination and 3D control and planning. The group felt that in taking this approach the interpretations would be complete enough to support other uses.

#### 2.7.1.5 Revision plans and notification

While this document is intended as a reference that can be cited in agreements such as contract and BIM execution plans, it is recognized that the use of BIM in design and construction is evolving. To accommodate this evolution this document will be updated periodically in clearly identifiable versions. Initially the target frequency is annually, but that may change in the future. In addition, interim updates may be issued if needed.

#### 2.7.2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

*UniFormat™* 2010 by the Construction Specifications Institute

#### 2.7.3 Terms and definitions, symbols and abbreviated terms

For the purposes of this document, the following terms and definitions apply.

##### 2.7.3.1

##### **model element author**

##### **MEA**

the entity (or individual) responsible for managing and coordinating the development of a specific model element to the LOD required for an identified project milestone, regardless of who is responsible for providing the content in the model element.

##### 2.7.3.2

##### **level of development<sup>2</sup>**

##### **LOD**

the degree to which a model element's geometry and attached information has been thought through – the degree to which project team members may rely on the information when using the model.

##### 2.7.3.3

##### **BIM execution plan**

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**BIMXP**

documentation of strategic and tactical information related to the implementation of BIM uses on a project.

**2.7.4 [Level of Development \(LOD\) Specification 2013](#)****2.4.7.1 Version**

The version of LOD specification approved by NBIMS-US™ consensus is the August 2013 edition. Further information is available on the BIMForum at [LOD](#).

**2.7.4.2 Referenced by other NBIMS-US™ Content**

None

**2.7.5 Bibliography**

1. *AIA Contract Document G202-2013, Building Information Modeling Protocol Form*<sup>3</sup>

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