

# National BIM Standard - United States® Version 3

## 2 Reference Standards

### 2.8 United States National CAD Standard® V5

#### 2.8.1 Scope – Business Case Description

The United States National CAD Standard® (NCS) is an existing industry consensus standard that is developed and managed under the oversight of the National Institute of Building Sciences buildingSMART alliance®. It has been accepted and utilized by numerous public, private organizations and educational institutions to standardize CAD and paper-centric information delivery for over a decade. A brief list of adopters is provided in **Annex A – NCS Adopters** and the current list is available on the NCS [website](#).

##### 2.8.1.1. Publishing organization

The National Institute of Building Sciences

##### 2.8.1.2 Version

United States National CAD Standard® Version 5

##### 2.8.1.3 Date of publication

May 2011

##### 2.8.1.4 Industry source and process

Like the NBIMS-US™, the NCS is a consensus standard developed and refined by industry leading organizations such as USACE, AIA, and CSI as well as a myriad of other companies and individuals. It is intended to be used to ensure consistent electronic building data for all phases of a project's lifecycle. It is an indispensable reference for NBIMS-US™.

The primary intent of the NCS is to coordinate efforts of the building design and construction industry by standardizing drawing information to streamline communication among owners and design and construction project teams. Use of the Standard is also intended to reduce cost for offices to develop custom standards. A more extensive list of benefits and intent are provided in **Annex A - NCS Benefits** and via the NCS [website](#).

Like the NBIMS-US™, the NCS has a well-established means of updating the standard. The revision process is provided in part II of **Annex A – NCS Rules of Governance** and is also available via the NCS [website](#).

The NCS is an industry consensus standard, industry representatives have ample opportunity to become and stay involved with further development of the standard. Information on getting involved is provided in **Annex A – NCS Get Involved** and via the NCS [website](#).

##### 2.8.1.5 Revision plans and notification

Revisions are accomplished in accordance with the NCS Rules of Governance and typically the NCS is on a 2.5-3 year revision cycle. As a product of the buildingSMART alliance® (the Alliance or bSa),

revisions to the NCS are initiated by the Alliance. The Alliance's Executive Committee has oversight of revision cycles for both standards and can coordinate revision efforts and schedules.

The NCS revision process is outlined within Appendix F – NCS Rules of Governance of the Standard. It is also provided in part II of **Annex A – NCS Rules of Governance**.

## **2.8.2 Normative references.**

None

## **2.8.3 Terms and definitions symbols and abbreviated terms**

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

### **2.8.3.1**

#### **United States National CAD Standard® NCS**

the United States National CAD Standard® (NCS) streamlines and simplifies the exchange of building design and construction data from project development throughout the life of a facility. It coordinates the efforts of the entire industry by classifying electronic building design data consistently allowing streamlined communication among owners and design and construction project teams.

## **2.8.4 [United States National CAD Standard® V5](#)**

### **2.8.4.1 License terms**

The standard is available to the public at a fee per version. License fee options are provided on the NCS [website](#). The license terms as defined within the License Agreement of the NCS are provided on the NCS [website](#).

### **2.8.4.2 Referenced by other NBIMS-US™ Content**

Although there are many BIM guides, guidelines, and standards that reference the NCS in addition to the NBIMS-US™, the references below are limited to NBIMS-US™ content. The references and apparent link between the standards is substantial and does not warrant an exhaustive search and reference to other documents.

- NBIMS-US™ 2 Reference Standards
  - 2.9.5 Bibliography
- NBIMS-US™ 5 Practice Documents
  - 5.2 Minimum BIM – Revised May 2012, 5.2.2 Normative references
  - 5.2 Minimum BIM – Revised May 2012, 5.2.3 Terms, definitions, symbols, units and abbreviated terms, Graphical Input 5.2.3.3
- NBIMS-US™ Annex A
  - NBIMS-US Project Committee Rules Of Governance January 2011, Purpose 1.1
- NBIMS-US™ Annex B
  - 7.1 National BIM Standard Version 1 – Part 1 Overview, Principles, And Methodologies – December 2007, Other Key Reference

## **2.8.5 Bibliography**

None

## Annex A List of References

### A.1 [NCS Adopters](#)

A documented list of NCS adopters

### A.2 [NCS Benefits](#)

Outlines many of the benefits of using the NCS

### A.3 [NCS Get Involved](#)

Provides information on how to become involved in the revision and development process of the NCS

### A.4 [NCS License Fees](#)

Documents Licensing options

### A.5 [NCS Licensing](#)

Documents the terms of the licensing agreement for NCS V5

### A.6 [NCS Rules of Governance](#)

The official rules of governance that documents how the standard is revised (Part II).